THE COMMERCIAL CAR JOURNAL

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Number 1

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PHILADELPHIA, MARCH 15, 1925

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Two Dollars a Year

SPEED WAGON

THE GOLD REO STANDARD OF VALUES

National supremacy in commercial haulage is represented by Speed Wagon.

More than 100,000 are serving in every line of business—

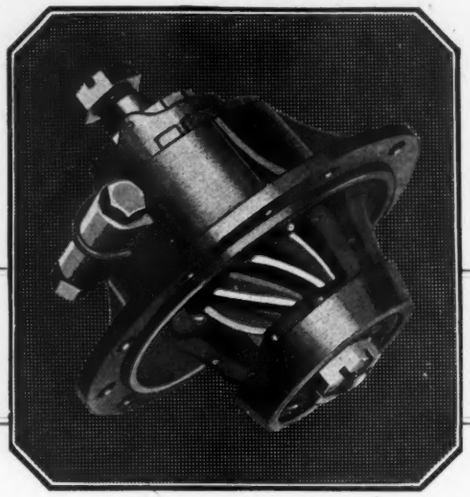
Simply because its design, construction, capacity, price, adaptability and performance qualities—

Combine to deliver greatest mileage per vehicle and most working hours per year.

Capacity, 500 *to* 2500 *pounds.*
Twelve standard bodies.
Chassis, $1185 *at Lansing.*
A Reo entirety since 1914.

Reo Motor Car Company
LANSING, MICHIGAN

Entered as second-class matter at the post office at Philadelphia, Pa., under the Act of March 3, 1879

CLARK  AXLES

Straddle Mounted Pinions for Strength

The pinion gear load on Clark Axles is carried between two bearings, utilizing what the Clark engineers call a "straddle" mounting. The conventional type still adheres to the overhanging pinion construction with its tendency to develop pinion bearing trouble.

This distinctive construction of the "straddle" mounted pinion on Clark Axles reduces pinion trouble to the minimum and insures continuous, economical, trouble-proof service.

Attention is invited to the illustration above which shows the opening in the pinion carrier flange thru which the spiral bevel pinion gear teeth mesh with the spiral teeth of the big gear ring. A bearing is placed on each side of the pinion gear from which the term "straddle" mounting is derived.

Clark Axles are the product of long experience in axle engineering design and unexcelled plant facilities.

Clark Axles are Built by

CLARK EQUIPMENT COMPANY

BUCHANAN, MICH.

We also make Electric Furnace Steel Automotive Castings; all our Steel is Bottom Poured

IN THIS ISSUE

When Competition is Not Competition

The leading article in this issue discusses a subject which we hear a lot about these days. If the dealer is worrying about such competition he ought to follow the advice that is given.

Mr. Dealer, Are You Selling Air Cleaners?

Most motor truck owners are prospects for air cleaners. The air cleaner is a necessity. It will cut down repair bills, eliminate frequent carbon cleaning and make the owner better satisfied with the performance of his truck. Air cleaners will some day be standard equipment on all automotive vehicles.

Making a Drive for Bus Business

If you are one of those dealers who think the undertaker is a poor prospect for a motor bus just read how a Detroit dealer got a lot of business—when others said it "can't be done."

Do Your Customers Help You Find Prospects?

If your customers are of the sort that don't give you tips when they should—well there's something wrong perhaps with the treatment they receive from you. This article tells how one salesman handling trucks exclusively made a record producing satisfied customers.

Do Combined Light Trucks and Car Sales Make the Best Dealerships?

This dealer finds that the passenger car salesman can sell light trucks and cars and that the combination keeps the business going on an even keel. This dealer doesn't have to worry about trade-ins. He hasn't all his eggs in one basket.

Improving *the* Pump Shaft

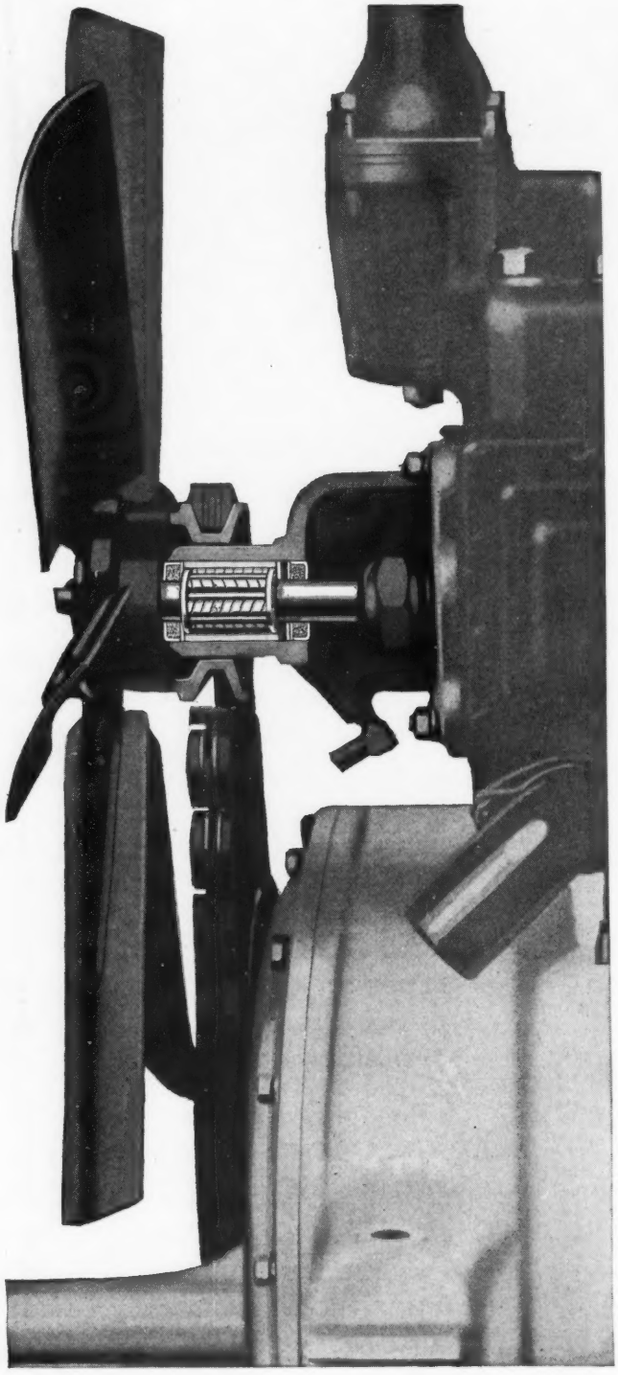
ANOTHER unit which is rapidly gaining in favor is the Hyatt equipped fan and pump shaft assembly.

By combining these two auxiliary drives into one there is a generous saving not only in the number of parts required, but also in the cost of manufacturing operations.

The elimination of the conventional pump shaft at the side of the motor gives it a far neater appearance. In addition this construction permits greater ease in servicing the assembly as it may be readily detached from the motor.

As in all Hyatt equipped units, this one is free from constant attention, for it seldom needs lubricating. Its inherent sturdiness, ease of assembly and quiet operation are also advantages of vital importance at this location.

Car manufacturers are adopting this unit in increasing numbers because it is a distinct step forward in motor car design.



HYATT ROLLER BEARING COMPANY

NEWARK DETROIT CHICAGO SAN FRANCISCO
WORCESTER PHILADELPHIA CHARLOTTE
PITTSBURGH CLEVELAND MILWAUKEE

HYATT
Quiet
Roller Bearings

THE COMMERCIAL CAR JOURNAL

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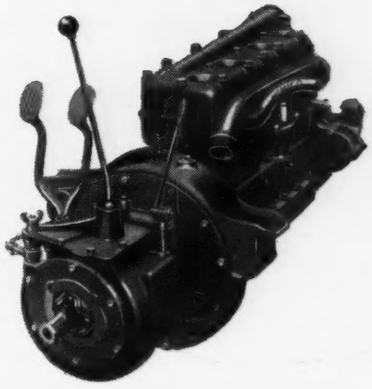


Get These Facts on Sliding Gears

In the whole field of Ford equipment, Himico is the only Transmission which actually transforms a Ford into a true sliding-gear type car or truck.

When you install a Himico, the Ford planetary transmission and clutch come out and stay out.

In goes a smooth, high quality sliding gearset, carrying its own sliding-gear type clutch. Out come all planetary features, including friction-creating transmission bands.

Himico thus brings your customer every advantage offered by any other sliding-gear transmission, plus all the simplicity, smoothness and trouble freedom of a real sliding-gear type car or truck.

We offer no comments regarding attachment or auxiliary transmissions. But to provide a truly sliding-gear type Ford, Himico is the one and only method we know for you to take.

Here is Ford equipment that will yield profits for you and satisfaction for your customer. Write today for our dealer proposition.

HIMICO TRANSMISSION replaces Ford planetary set. Sliding gears, three forward speeds and reverse. Complete with replacement crank case, $137.

HIMICO POWER PLANT replaces a Ford engine and transmission. Includes Transmission and Engine of original Ford parts to which we have added High Velocity Head and Hot Spot Manifold. With new Engine, $209. With remanufactured Engine, $184 (and your old block). Emergency Fourth Speed, 42 to 1 (especially for trucks), $15. Power Takeoff, $18.

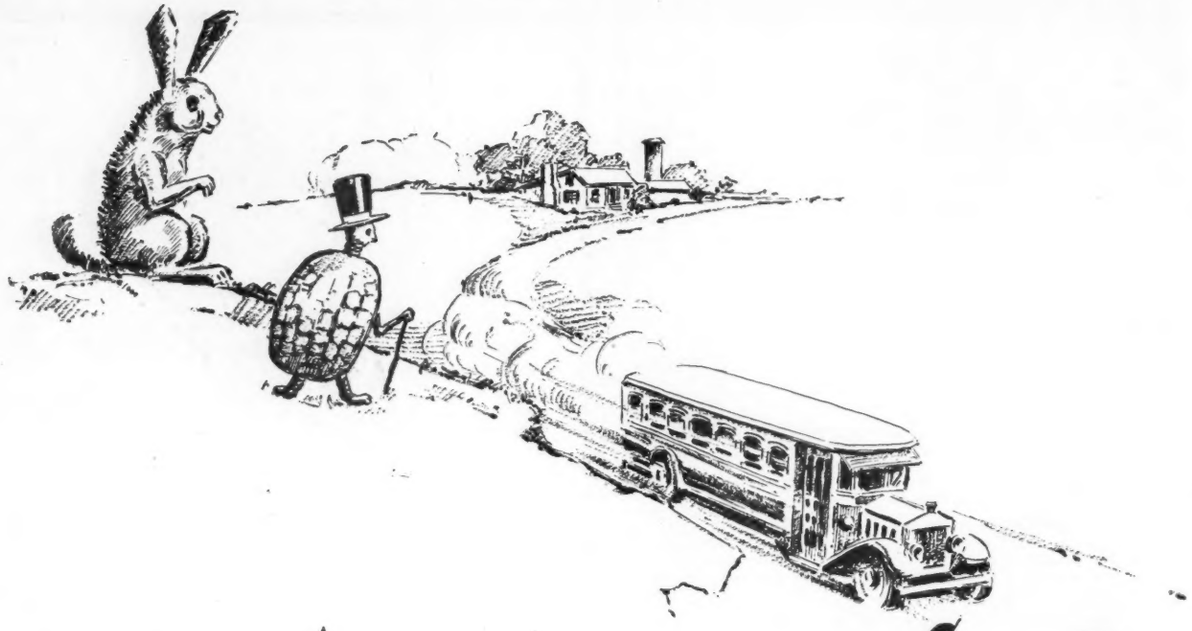
Install Without Butchering Any of the Ford Chassis

HINKLEY MOTORS, Inc.

P. O. Box J-839 Detroit, Mich.

Builders of the Famous Hinkley Heavy-Duty Automotive Engine

HIMICO
TRANSMISSIONS
POWER PLANTS



More haste or more profits?

—pointing a new moral to an old, old story

Tradition has it that the tortoise won!

And with very few reservations old Aesop's fable might well have been told to modern bus operators, with a moral on the over-speeding question.

For many a bus man is fooling himself into believing he is winning out on a sound business basis by clipping schedules, and speeding up buses to gather an extra load or two of fares a day.

While in reality his imaginary profits and a good many more besides are soon swallowed up in the cost of the excessive wear and tear, repairs and depreciation which follow inevitably on over-speeding.

Remember that every mile an hour above the safety limit for any make of chassis, doubles and redoubles the sledge hammer blows of road shock, and the tearing, racking force of vibration. No engine and no bus chassis, however well built, can stand such treatment.

Running buses on a fair schedule will do much to remedy this evil, but it put no check on the driver who steps on the gas in order to "take it easy" at terminals or along another part of the route. Only an efficient governor can give your bus the protection it must have *all of the time.*

Pierce Governors (by automatically regulating the engine speed), protect your investment, cut down running expenses and increase bus life. That's why more than 150 manufacturers of motors, buses, trucks and other automotive vehicles have adopted Pierce Governors as standard equipment.

PIERCE Governors

Every part of the Pierce Governor is accurate in construction and assembly. Weight spider, the only rotating member, runs on ball bearings in an oil bath—permanently trouble-proof. Look over these other features making for constant efficient service—

1. It is only necessary to drop the carburetor a distance equal to the bore of the intake manifold.
2. The carburetor butterfly is in no way connected to the Pierce Governor. This gives the driver absolute control at any speed under that for which the governor is set.
3. All flanges of the governor valve box are standard S.A.E., unless otherwise ordered.
4. Pierce Governors will work perfectly at any angle in relation to the motor.
5. Neither atmospheric temperature nor humidity has the slightest effect on the governor's operation.
6. Pierce Governors are not affected by the heat generated by the engine.
7. There is no obstruction in the manifold to cause condensation of the gasoline vapor.
8. Valve cannot stick from either expansion or contraction, or as a result of dirt and grit.
9. If a Pierce Governor becomes broken or damaged, the throttle can be operated by hand.
10. Action of the governor is positive, and speed regulation always the same.

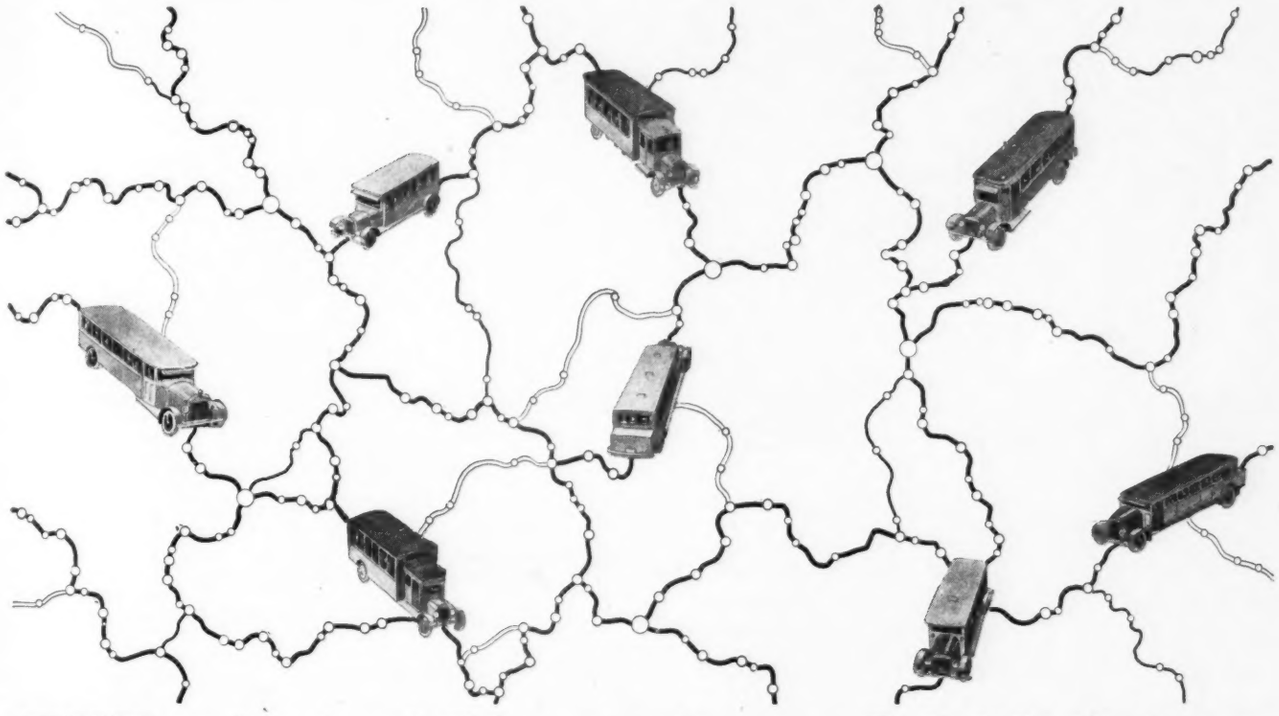
Full Details in an Exhaustive Booklet on Request

Manufactured by

The Pierce Governor Co., Anderson, Indiana

"World's Largest Governor Builders"

The Main Line to Everywhere



EVERY town is on the road map. And the main street is on the main route of bus transportation.

In buses the buyers are brought right up to the business. With buses the factory enlarges the field that supplies it with workers. Buses take teachers and children to far better centralized schools. Buses even are the last word in luxurious long-distance travel for pleasure. Quite invariably these are buses that run on Timken Tapered Roller Bearings. For example:

Timkens were used in every one of the 58 motor buses exhibited before the American Electric Railway Association at the Atlantic City show.

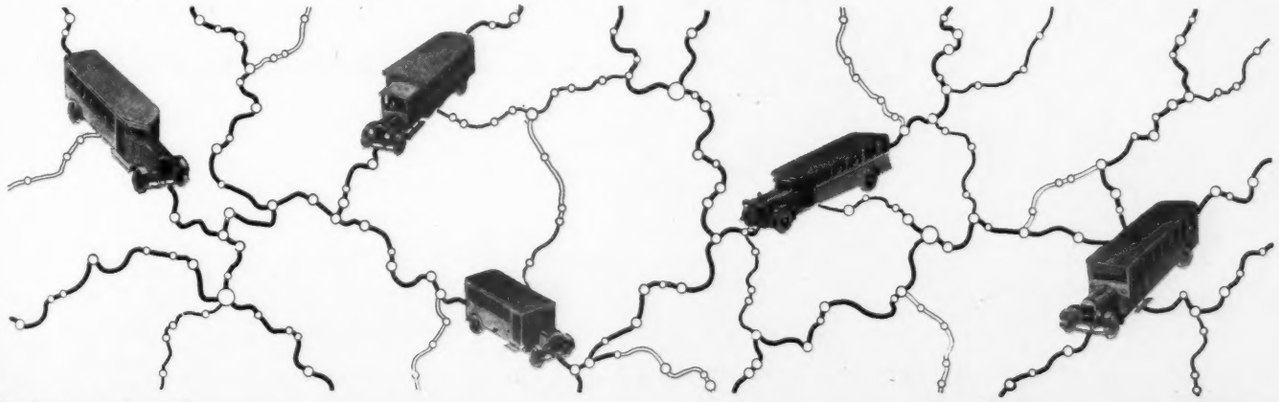
Such is the confidence reposed in Timkens by the bus industry, whose entire development hinges strictly on dependability.

Doubly significant is the literally universal adoption of Timken Bearings for the buses built to appeal to rail transport experts.

The bus business, like the passenger car business, the machine tool business, the mining business, the steel business or other industry, finds it most profitable to go to a Timken-equipped basis.

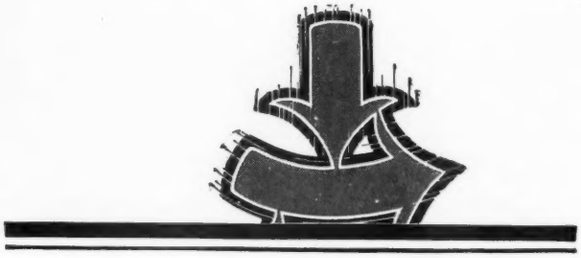
Timkens prevail because greater Timken load capacity does add to the safety factor; Timken Dual Duty does provide for *both* radial *and* thrust loads; Timken steel does assure utmost service without attention; and Timken adjustability does reduce the depreciation item.

THE TIMKEN ROLLER BEARING CO., CANTON, OHIO



© By The T. R. B. Co., 1925

TIMKEN *Tapered Roller* **BEARINGS**



Only exceptional performance and endurance could establish the prestige Gilliam Tapered Roller Bearings have attained.

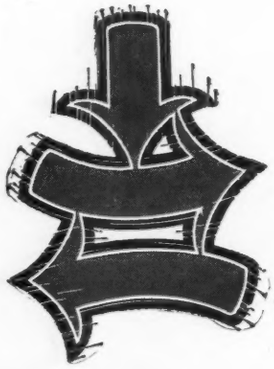
This is reflected in the rapidly increasing use of Gilliam Bearings as standard factory equipment.

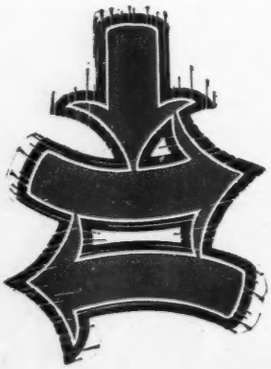
The Gilliam Manufacturing Co.
Canton Ohio

The arrow symbol signifies the recognized ability of Gilliam Tapered Roller Bearings to carry all combinations of radial and thrust loads from all directions.

They are used as standard equipment in 74 makes of passenger cars and trucks.

Gilliam Bearings are made of high grade alloy steel.





GILLIAM TAPERED ROLLER Bearings

New Departure Ball Bearings

The Quest of Longer Life

"The life of the average automobile has advanced from five to seven and a half years, or an increase of 50%. In the entire history of industry there is no achievement comparable to that of the American automobile industry for improvement in the quality of the product and advance in the efficiency of operation."*

The useful life of New Departure Ball Bearings is still unspent after every other moving part in the motor car has worn out—and this without adjustment.

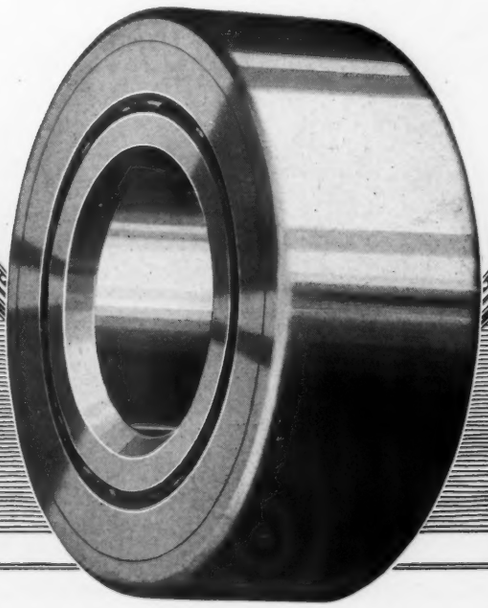
If it were possible to prevent wear in an equal measure in the cylinder walls, gears, crankshaft and wrist-pin bushings, batteries and tires, the automobile would be a life-time investment.

THE NEW DEPARTURE MANUFACTURING CO.

Detroit BRISTOL, CONN. Chicago

56 Victoria St., London, S. W. 1, England

*Statement by L. P. Ayres, of Cleveland, Ohio, at Annual Banquet of the Society of Automotive Engineers, New York, January 15, 1924



Birmingham

is an International Town . . .

Make *Your* Town an International Town

The E. L. Ford Company is International dealer in Birmingham.

What Ford has done hundreds of other International dealers are doing in the U. S. and you can do.

IN Birmingham, Alabama, there are more International Motor Trucks than any other kind of heavy-duty truck, without exception; in spite of the fact that many other well known truck makers have service stations in the city. *There must be mighty good reasons for that popularity.*

Of the 39 retail coal dealers in Birmingham using motor trucks, 22 are owners of International trucks. Of all other makes, there are probably not over 6 heavy-duty trucks at the outside in the city's retail coal business. *Find out the reasons for such preference.*

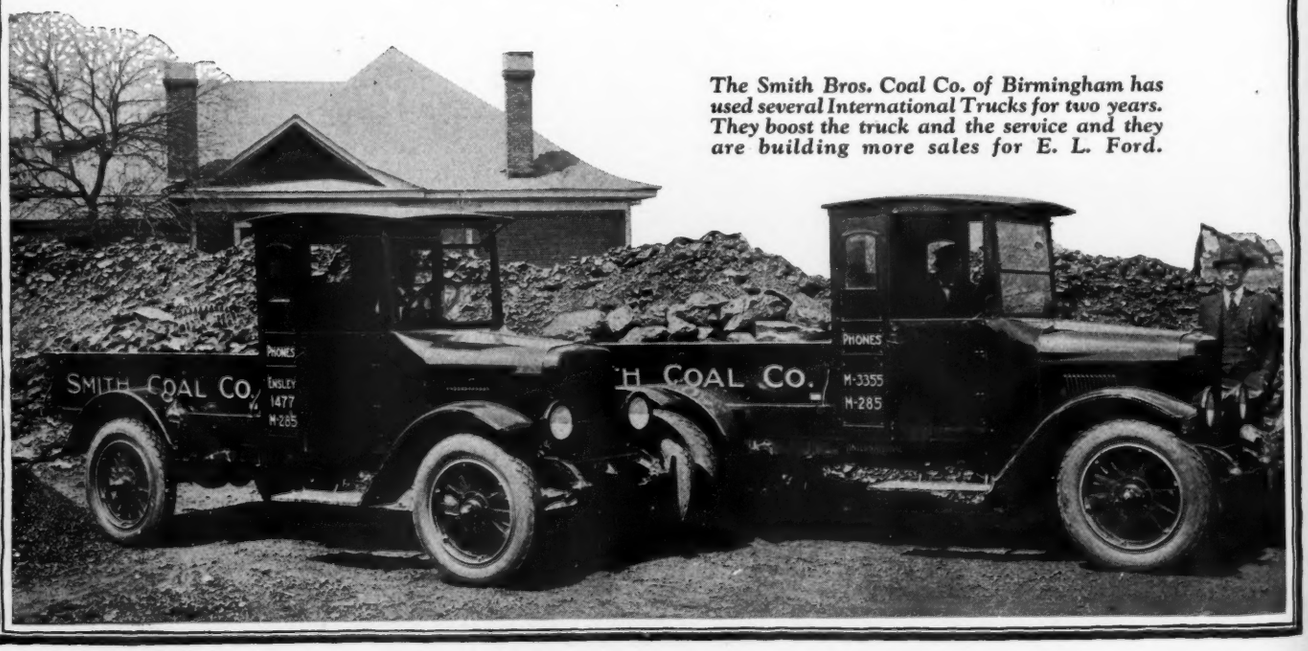
Retail furniture in Birmingham is hauled in 22 Internationals, more than all other high-grade motor trucks in that line of business put together. Eleven Internationals haul lumber to the ultimate consumer in Birmingham. In the dairy business Internationals predominate in the field of heavy-duty haulage. Of 5 piano stores in town, 4 prefer to use Internationals exclusively.

This is hitting just a few of the high spots. There are several hundred Internationals in Birmingham, a city of only 178,000 people.

International Heavy-Duty Trucks range from 3,000 up to 10,000-lb. maximum capacities. There is also a sturdy Speed Truck for loads up 2,000 pounds. Sizes and bodies to meet every man's needs. Motor Coaches supplied for all requirements. One of our 105 Company-owned branch houses is near you. Write for particulars of the International contract.

INTERNATIONAL HARVESTER COMPANY

606 So. Michigan Ave. of America (Incorporated) Chicago, Ill.



The Smith Bros. Coal Co. of Birmingham has used several International Trucks for two years. They boost the truck and the service and they are building more sales for E. L. Ford.

The Commercial Car Journal

VOLUME XXIX PHILADELPHIA, MARCH 15, 1925 NUMBER 1

A Competitor *is* a Competitor *Only* When He is Prosperous

Dealers and Branch Houses That Do Business at a Loss Are Not Competitors. Forget Them!

HEAVY trading allowances and vicious price deals are almost invariably associated with "branch house" competition, sometimes justly.

A legitimate profit has been extracted from many a motor truck sale and unnecessarily, too, by the irresponsible methods pursued by these factory (?) branches.

Before proceeding, we want to make ourselves clear that what is hereinafter said about branch house competition does not apply to the principle of selling through branch houses, but particularly to methods and policies which are demoralizing to the industry as a whole.

No objection can be raised against any manufacturer who sells through branches any more than if he sells through dealers. It is not a question of which method he uses but **how he uses it**.

The point at issue is, will the whole industry submit to the insidious propaganda which has been foisted upon the industry and upon the innocent purchasers, or will the industry at large take the bull by the horns and unitedly advise the truck buying public that it is being stung when it lets itself in on any deal where big discounts and fictitious price lists are used as subterfuges to get the business.

On the other hand, the manufacturers and their dealers who are meeting such competition must be willing to lay their cards on the table! They must be prepared to render a perfectly legitimate and accurate statement to the buyer which will convince him that the price asked and the profit he must realize to stay in business are both equitable and necessary.

HE must show the purchaser something besides a "price" argument.

Unfortunately many manufacturers and their dealers are trying to meet these vicious tactics with the same poison that the competitors are strewing about. Certainly this will not get them anywhere.

If the Blank Truck Company thinks it can gain an advantage over some of its competitors by cutting out its list prices, or making wild trades WHY NOT LET THEM DO IT?

But WHY FOLLOW?

Why not be independent and run your business as you think it should be run?

Why ruin your chances of making a success of your business?

If you have started out in good faith to sell trucks on a reputable, square deal basis, continue that way. You cannot be any worse off in the long run—in fact you cannot help but be better

off financially and physically. In the first place you won't have half as many bad debts and losses to account for at the end of the year and secondly you won't be sick worrying about the mess you are in.

If such great allowances can be made on the list price of the complete vehicle when purchased, why doesn't the same thing apply to the PARTS PRICE LIST? Why not sell parts on a competitive basis?

Why doesn't the owner get a big discount on parts also?

Why not also give him a year or so to pay for them?

Parts are usually sold for cash and at the list price—there's no trading at the parts counter—No Sir!

* * * *

Dealers will never meet this competition by wailing about it.

First of all they must stop meeting this sort of competition on a price basis. They cannot compete with any concern that is operating at a loss, which is the case with most of the branch houses.

They must meet this competition by flat footedly refusing to sell to any customer who is looking for a **price deal** at a cut-price basis. The transportation merchant will sell trucks to fit the requirements, and that will be economical in operation and in maintenance.

They must sell a truck that is properly priced and then stick to that price.

The price must be the same to all.

There must be no deviation once the trade-in allowance has been named. It's far better to have the profits on a few trucks, than a back yard full of high-priced junk.

Remember this: It's not the number of trucks you sell during the year but it's THE PROFIT YOU HAVE MADE.

Speaking of profits, how many branches make a profit from the sales of complete vehicles? Very few. We believe where one branch makes a profit there are two or three others probably of the same company that lose heavily and one is safe in saying that branches as a rule are not money makers.

ABOUT the only reason some factories are selling through branches is to work out certain definite production schedules—to get rid of a certain number of trucks each year. There's no reason in the world why dealers should follow the example and certainly there's no logical reason why the small manufacturer should follow those same tactics.

Instead of throwing your commission and profits to the four winds PUT THAT MONEY INTO SALES EFFORT.

Be frank with your customer.

Give him a statement of facts as to the cost of manufacturing the truck, what it will cost to replace major units, why you must have a certain percentage of profits to enable you to give him the service he must have by keeping on hand a stock of parts for his convenience.

Compare "replacement parts" lists and ask him whether he would rather buy a truck on which the price has been figured out on an actual cost plus profit basis or whether he would rather buy a truck on which the price probably is high to justify a big discount, so that the customer may think he is getting a bargain. Incidentally the customer may find that if he isn't paying the list price when purchasing the vehicle he does pay for it eventually in the purchase of replacement parts which are priced at sometimes double and triple what they are actually worth.

Some concerns are able to give big discounts and make big allowances on trade-ins because they are working with a fictitiously high list price.

THE ACTUAL VALUE IS NOT IN THE VEHICLE!

How can they afford to sell their products on such ridiculous terms, such as nothing down and two or more years in which to pay.

Does not the fact that they do these things indicate that by the time they make all the "wild allowances" and so on, the customer gets a vehicle which is only worth actually what he pays for it, while probably he thinks he is getting a bargain, or a machine of exceptional engineering merit, at a greatly reduced price.

If he doesn't get rid of that truck before it needs overhauling he may find that the saving he thought he made in buying a truck at a bargain is more than offset by the repair bill he will get when the truck is overhauled.

BIG DISPLAY OF MOTOR BUSES FEATURE OF BOSTON SHOW

Greater Interest in Motor Truck Displays Being Taken Than Ever Witnessed at Any Previous Show. Dealers Very Optimistic With Signs of Business Picking Up Everywhere in New England States

By JAMES T. SULLIVAN

BOSTON, March 7 (Special).—New England's big motor show—it is called the Boston Motor Show—with its comprehensive commercial exhibit opened here today. Mechanic's Building was pretty well filled within an hour after the doors opened at 2 o'clock, but the real throng filtered in at night. The largest exhibition of commercial cars ever exhibited is found in the basement this year. Nearly all the big companies are represented, the two prominent ones not included being Autocar and White. They have been out of the shows for some years.

The one striking feature this year is the remarkable display of coaches or buses. Two years ago there were one or two small buses. Last year a few more. This year there are 15 of them, from the smaller types to the big ones used on long runs like New York to Boston. They seem to dominate the truck section because they loom up in comparison to the few that were on hand in the past.

With all the talk of the railroads seeking legislation to run buses to displace the short lines, and the agitation to place them under some restrictions by State officials, interest in their use has increased to a large extent here. Where New England had a score of bus lines running a few years ago there are scores today, with the numbers increasing.

Big Display of Bodies

This does not mean that the other commercial vehicles are overlooked. Going from one space to another there are chassis of every tonnage from the one to the five and seven-ton vehicles. Mack has sent over its "Mack Greyhound" the big six-wheel chassis. Also there are dozens of dump and stake body trucks. The number of furniture vans runs up to nearly twenty. There is every variety of vehicle present to meet any requirement, including the hearse and the fire apparatus.

This year the truck makers and distributors have taken much larger spaces. And body companies have come into the show with their equipment, for example, the Brown Body Company, of Cleveland, Ohio, which has three coaches, and as they are one White chassis this really gives the White Company representation without being an exhibitor.

Also the coaches exhibited are lettered in nearly every case showing that they have been sold to companies or railroads, and have been loaned for the show. In the Mack space is one of its new conveyors, a big box-like arrangement, lined with metal, that may be swung off a truck chassis and onto a railroad car or platform with its load while the truck moves off for another load.

Dealers Optimistic

President J. S. Hathaway, of the Boston Commercial Vehicle Dealers' Association at the show today, stated, "that never in the history of the industry were the dealers so optimistic over sales." They seem to feel that this is going to be a real profitable year throughout New England with business showing signs of picking up everywhere. And talking with dealers generally at the show one gets this same impression. They move around now as if they had an object in life instead of just sitting or standing listlessly watching the streams of people flowing by. This is true also of the salesmen.

At the show today there were many people noticed giving the commercial cars, especially the coaches, very close inspection. This year, too, the operators of the coaches are on hand with information and booklets explaining where the tours go, or the route of some of the lines. Manager Chester I. Campbell has provided music for the basement to add to the air of life there. He is going to pay more attention to the commercial section through the news end. There is a realization that the coaches have now formed the connecting link between the passenger car and the commercial vehicle.

Among the new things at the show, we find the new Stewart 25-pass. six-cylinder motor bus, which is powered with a Continental engine. Other specifications include a spiral bevel gear, single reduction, semi-floating rear axle; Ross steering gear; frame 22¾" from the ground. Chassis price $3950 delivered. This exhibit also includes the Stewart 18-pass. Highway Sedan.

The Weaver Manufacturing Company is featuring its new brake lining machine, truck ambulance and service rack. These devices are making their first appearance at this show.

The Highland Body Mfg. Co. is showing a specially designed cab developed for use with van bodies.

Mead-Morrison Mfg. Co. is showing a very complete line of its winches, most of which is shown in the new catalog which this company has recently mailed to the trade.

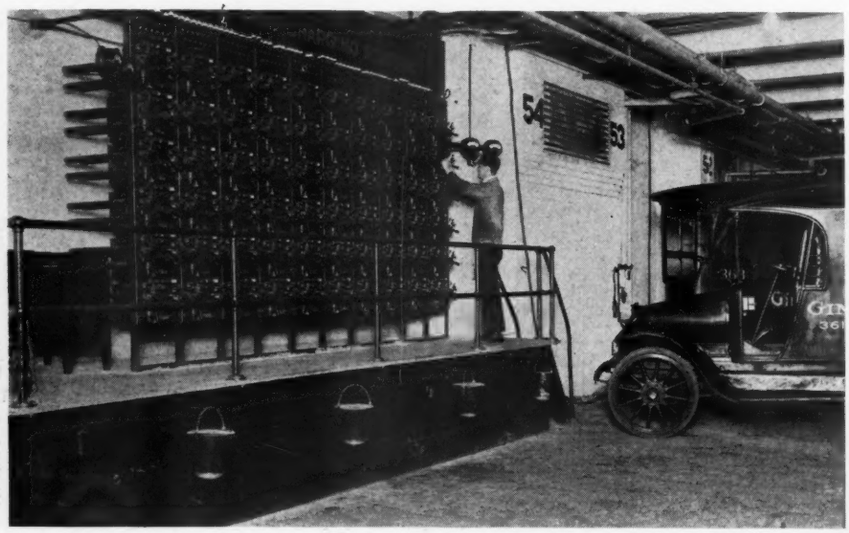
Curtis Pneumatic Mach. Co., of St. Louis, is showing its new Curtis Air Mist Vehicle Washing equipment, which was described in a recent issue of Commercial Car Journal.

Commercial Cars Exhibited

American La France	Maxim Fire Trucks
Chevrolet	Maxwell
Cunningham	Netco
Dodge Brothers	Pierce-Arrow
Federal	Reo
Ford	Republic
Garford	Rollin
Graham Brothers	Ruggles
Gramm-Bernstein	Selden
International	Stewart
Kelly-Springfield	Wachusett
Mack	

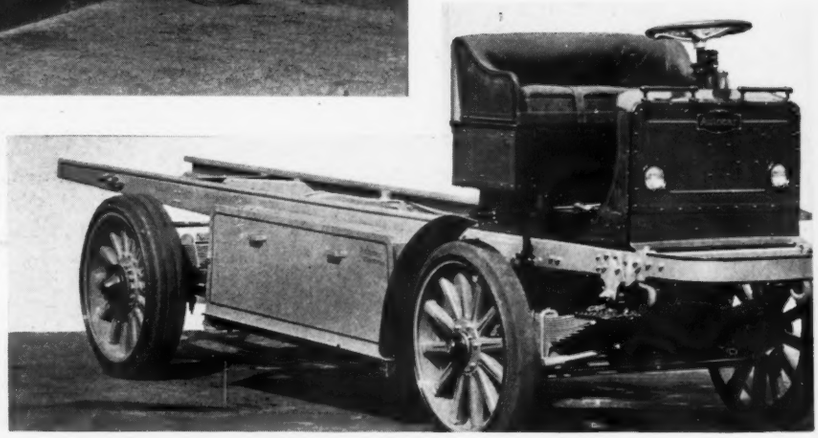
Electric Trucks and Equipment

Being Displayed at the New York Electric Show, March 16-21, in the Showrooms of the New York Edison Company, Irving Place and 15th Street



The Allen-Bradley Type, L-1210 Unit Panel Charging Board

The Allen-Bradley Co., Milwaukee, Wis., is displaying units which are embodied in the panel illustrated. The outstanding feature of the Allen apparatus is the graphite compression type rheostat which affords smooth and stepless current regulation. The apparatus is very simple in construction and compact, each unit charging panel occupying a space on the switchboard 12-in. high by 15-in. in length. Each battery circuit is protected with a single pole overload circuit breaker and also a single pole underload breaker.

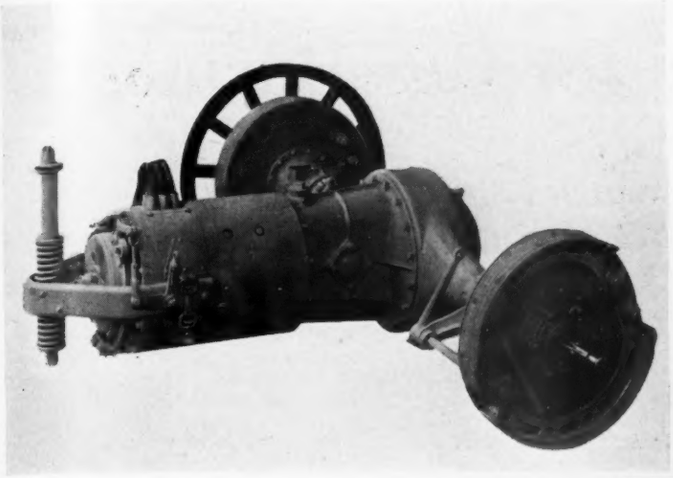


The Autocar 3-Ton Electric

The Autocar Co., Ardmore, Pa., is showing its 3-ton model. The outstanding feature of the Autocar Electric is the double reduction rear axle, which is practically the same as the axle used in the Autocar gas truck, with the exception of changes made in the gear to adapt this axle to the characteristics of the electric motor. The battery box is carried in a swinging trunnion construction instead of being rivited to the chassis frame. The batteries are carried on sliding trays which can be moved in and out of the battery box without the aid of any auxiliary mechanism, enabling flushing of the battery without difficulty.

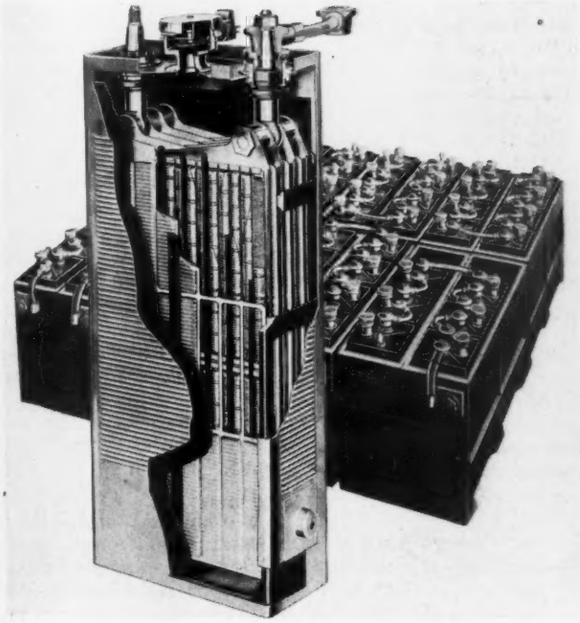
The Ward Laundry Wagon, Model B-222

The Ward Motor Vehicle Co., Mt. Vernon, N. Y., is featuring its laundry truck which is in the service of the National Laundry. This truck is of the cradleless type; the battery being installed in the body. This increases the ground clearance and is claimed to improve the performance of the vehicle. The special bumper allows the driver to get in out of the truck with a minimum of effort. This saves considerable time when a man may have to make as many as 200 to 300 stops. This company has also developed a milk truck chassis which will take the standard milk truck type body with the side entrance. Two sizes of this model are being offered, one which will handle about 25 cases and the other as high as 50 cases.



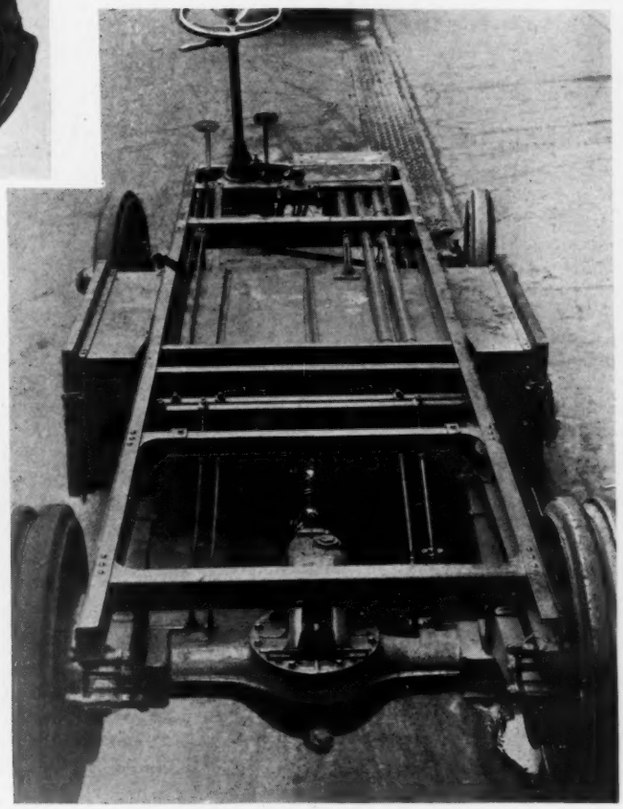
The Steinmetz Electric Drive Unit

The drive of the Steinmetz electric built by the Steinmetz Electric Motor Car Co., Baltimore, Md., is composed of the motor, gear reduction and rear axle, forming a self-contained unit. The motor is bolted to a one-piece gear case casting in which are mounted all the driving gears. The gear case is bolted to the rear axle, insuring perfect alignment of all parts. In the Steinmetz electric the battery weight is divided by carrying half of the battery under the hood and the other half under the driver's seat.



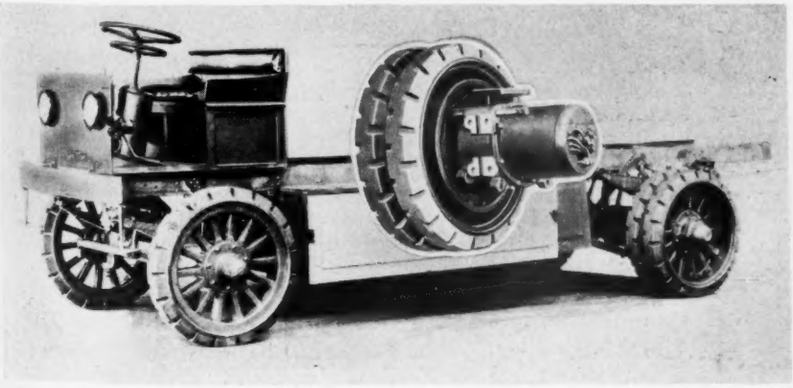
The Edison Steel Alkaline Battery

The Edison Storage Battery Co., Orange, N. J., is showing a full line of its batteries, also cut away cells to show the construction. This company is also featuring an animated exhibit showing street trucks running through the streets of a town and over a bridge. The Edison Battery employs an alkaline electrolyte. Each cell is contained in a steel container. The plates are made of steel containing nickel hydrate and pure flake nickel in the positive plate and iron oxide in the negative plates.



The Lansden Electric With Double Reduction Drive

The Lansden Co., of Danbury, Conn., is showing its "Century" heavy duty model, which is a 2000 lbs. capacity vehicle. In literature and with an axle this company is showing its new double reduction drive as illustrated above. This drive is optional equipment on the Lansden "Marathon" model. This company believes this to be a pioneer undertaking on the part of any electric truck manufacturer in using conventional automotive units in an electric and achieving in such an ensemble the efficiency which has heretofore only been had with chain drive or certain peculiar and special forms of drive used in electric trucks.



The C-T Two Motor Concentric Gear-Drive Electric Chassis

The Commercial Truck Co., Philadelphia, Pa., is exhibiting the model illustrated also a complete working model of the drive with the case cut away to show the arrangement of the gears. The entire line of C-T Electrics is from one-half to five tons and now includes the two-motor concentric gear design. This form of drive is claimed to provide better traction; provide maximum accessibility of parts; makes possible the use of spur gearing free from end thrust and adjustments, and increases life of tires because of absence of differential gears.

Making a Drive for Bus Business

How One Sales Manager Finds Prospects and Teaches His Men to be Real Salesmen

By D. G. BAIRD

L. W. FORCE, sales manager of the Reo Michigan Sales Company, and environs, has some distinctive which sells Reo buses in Detroit ideas about getting prospects and training his men to be real salesmen.

The city of Detroit has a fleet of buses in which uniformed policemen daily haul crippled children to and from school, for example. There are fourteen of the buses and all are Reos. It took a very nice job of selling to land this contract, and Reo Michigan Sales got it.

The Detroit Motorbus Company is also using a number of Reo buses for transporting passengers about the city and has bought still others. These are, of course, of the street car type.

Then there are numerous bus lines radiating from Detroit to nearby towns and cities in all directions and the number of Reos in such service is impressive. Evidently some one has been going after the bus business and getting it.

But the most unusual sight encountered in this connection is that of a Reo Transcontinental bus being used to transport mourners to and from a funeral.

How these buses happened to be put to such use is a very good example of this sales manager's alertness and selling methods.

A man of limited means, but many friends, had died and Mr. Force suspected that provision would be made for transporting only a very few of the many mourners to and from the cemetery. He, therefore, sent over two of the big buses to accommodate these people, the first time buses had ever been so used.

The Bus in Funeral Service

Not a thing was said, or even hinted about selling the buses. They were simply lent as an accommodation to the bereaved family and the mourners. Nevertheless, shortly after the funeral, the undertaker who had been in charge came in and bought one of the buses.

Then Mr. Force got his commercial car men together and told them of the many advantages of Transcontinental buses for funeral purposes. They accommodate a large number of mourners in a single conveyance, thus shortening the line of cars on the trip to the cemetery and minimizing the likelihood of its being broken at a railroad crossing or elsewhere, they bring the people together in one big group instead of scattering them around in a number of passenger cars, in case of bad weather the buses can be driven right up near the grave and the mourners need not get out—they can sit in comfort and view the ceremony through the windows.

The skeptics suggested that perhaps the bus was all right for the funeral of one in humble circumstances, such as the one that had led to the sale of the first bus for such a purpose, but that the better class of people would not use them. To test this theory, Mr. Force then lent another bus to be used at the funeral of a prominent and wealthy man and the undertaker not only used it, but let it lead the procession to the cemetery.

Employs Solicitors

This convinced the skeptics and the bus salesmen were instructed to call on at least one undertaker a day till they canvassed the entire list. They are now going after this business and getting an encouraging amount of it, while the indications are that the bus is going to prove very popular among undertakers.

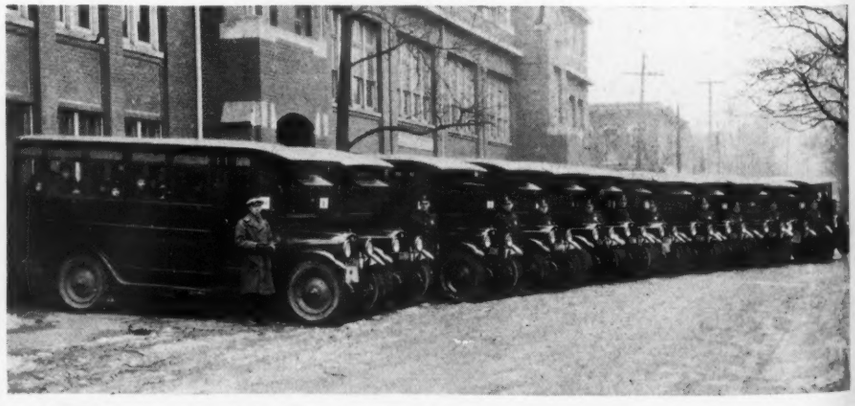
This is one reason why there are so many Reo commercial jobs of various kinds on Detroit streets.

There is another reason, however, and a very good one—the fact commercial car salesmen employed by Reo Michigan Sales are thoroughly experienced men, who have been with the company a long time, and that new men are given an exceptionally thorough course of training before being turned out as full fledged salesmen. Mr. Force insists that most automobile and truck salesmen are ruined before they ever become salesmen, but are turned out as salesmen just the same. His plan is to let them meet the obstacles gradually and to develop them slowly, so that by the time they are qualified to be called salesmen, they will be salesmen in deed as well as in name.

Trains His Own Salesmen

In following out this course, he first employs men of good appearance, personality, and native ability who give promise of becoming salesmen, but who have not already been spoiled by attempting to sell cars or trucks before they completed a thorough apprenticeship. These men are employed on a salary as "solicitors." Their job is to call on commercial car users for the purpose of soliciting information; in other words, to canvass the territory for the purpose of discovering prospects.

For the first couple of months they are not so much as invited to attend the sales meetings. After about two months, if they have developed satisfactorily during this time, they are admitted to the sales meeting, but they are not yet given the title of junior salesmen; this comes a month or two later, again provided they have made satisfactory progress up to this time.



The City of Detroit Uses 14 Reo Buses to Transport Crippled Children to and From School Daily

As solicitors, these men work directly under the sales manager and do nothing other than canvass. They don't even work with the same salesmen regularly, and they don't call back with the regular salesman when he goes to see a prospect whom they have discovered. Salesmen have regular territories, but solicitors are switched about daily, or oftener.

After becoming junior salesmen, the former solicitors are permitted to call on prospects in company with salesmen, but they at first take no part in the transaction, their sole purpose being to listen and learn. As they gain more experience, they are given more and more of the authority and responsibilities of salesmen, and after serving a total apprenticeship of about a year, they may become full-fledged salesmen, provided they have demonstrated their ability to make good as salesmen.

Salesmen Develop Too Rapidly

"A man can't learn the profession of selling in a week or a month," Mr. Force insists in explaining his position on the subject. "He must serve an apprenticeship in this field, just as he would have to do in practically any other, except one or two where salesmen work on straight commission and have to dig up their own prospects, just as they do in the automotive line. The trouble is, so many dealers and sales managers take the attitude that if a man sells a car or two for them, they are just that much ahead, and if he doesn't sell anything, he doesn't cost them anything. **They advertise continually for salesmen, employ practically anyone who applies, send him out with little or no training, and he makes a farce of selling.**

"That is bad for everyone concerned. It is bad for the man, because it discourages him and causes him to waste time in trying to do something he isn't prepared to do; it is bad for the employer, because such men misrepresent his product and are a discredit to him; and it is bad for the industry because it has developed thousands of half-baked salesmen who are continually shifting around and has given the general impression that selling cars or trucks is a mighty poor, risky job. This very condition prevents many able men from entering the field, because they see that conditions are bad within.

"We employ solicitors and gradually develop them into salesmen. Their first job is canvassing, but they are merely canvassers; they are men of a higher caliber who are starting in at the bottom to work up. We furnish each man with a car and encourage him to feel that his work is as dignified and important as that of anyone in the organization.

Learns to Meet Men

"The solicitor goes out and calls on business men for the purpose of gathering information. He learns to meet such men, he learns how to approach them, he learns where to find them, and he learns how to gather information. He is forming his first contacts in this field. He has 20 or 25 calls a day to make and this teaches him to keep hustling steadily.

"We switch him around for two reasons. We want him to come in contact with the different classes of prospects to be found in different territories, for one thing, and for another, we don't wan't him to work regularly with one salesman Some salesmen attempt to develop their juniors too rapidly and rely on them to do part of their work while they do something else.

"Solicitors don't call back with salesmen because they haven't reached the stage in their training where they are prepared to be of benefit either to the salesman or to themselves by doing so. When they become juniors is soon enough for them to begin calling with the salesmen. Let them master one thing at a time.

"In the meantime, they are studying the product, and by the time they become salesmen, they are prepared not only to go out and make a success for themselves, but to be a credit to their employer and to their product.

Undesirables Sift Out

"We put them through a stiff course of actual training, there's no denying that. If they haven't the ability, the courage, and the determination to complete the course and become the kind of salesmen we insist on, the sooner they drop out, the better for them and for us. On the other hand, if they go on through the course, mastering all the details and learning to meet the discouragements they're bound to meet with as salesmen, in about a year, they are prepared to go out and successfully practice a good profession."

Some will not agree with Mr. Force in every point of his argument, perhaps, but the fact remains that he is developing some capable salesmen and that many of the salesmen now with the organization have been with it for many years.

It is interesting to know, in this connection, that as president of the sales managers' association of the Detroit Automobile Dealers' Association, Mr. Force is leading the way in an effort to set some kind of standards for automotive salesmen and to solve the several problems with which dealers have long been confronted because of the generally unsatisfactory performance of salesmen in the industry and because of their tendency to shift from one job to another at frequent intervals. This condition is perhaps more aggravated in the passenger car line than in the commercial car field, but it is serious enough in the latter to demand the attention of those who are interetsed in bettering conditions for themselves and for the industry.

Many Reo Buses of This Type Are in Use Between Detroit and Surrounding Towns

Hoover Reports Real Progress on National Safety Program

Fact that the findings of the National Conference on Street and Highway Safety have received nationwide consideration and resulted in legislation to improve safety on the highways being introduced in 38 state legislatures since January 1 is contained in a report just made public here by Secretary of Commerce Herbert Hoover.

"Real progress is being made toward better control of traffic to prevent accidents since the recent conference of public officials and voluntary agencies from all parts of the country upon street and highway safety," Secretary Hoover says in opening his report.

"An indication of the public attention now being given to street and highway safety is the inauguration of state and local conferences and the appointment of state commissions to consider the problems involved.

"In Massachusetts Governor Fuller called a state wide conference participated in by state officials, mayors, chiefs of police, the Massachusetts Safety Council, Chambers of Commerce, Motor Clubs and other organizations. In Michigan Governor Groesbeck organized a similar conference. In Missouri plans are being made for a street and highway conference of city and state officials, a large number of private organizations, women's clubs and newspaper editors. These conferences have for their avowed purpose the application of finds and conclusions of the National Conference in the state and localities concerned.

Making Your Customers Find Your Prospects

How Many of Your Customers Are Working for You?

By H. LIONEL WILLIAMS

HENRY FORD is reputed to have said that it takes as much effort to sell one truck as it does to sell ten automobiles. On that basis A. F. Burns must occasionally expend enough energy to sell 160 cars a month. Burns is the manager of the truck sales department of the Rue Spencer Co., Ford dealers of Bloomington, Illinois, and is the sole truck salesman of that company. Before he joined the Rue Spencer Co., the trucks were sold by the automobile salesmen, who were successful in disposing of 15 trucks in nine months. Mr. Burns does not think he could sell an automobile, because he is not interested in them. But he can sell trucks. In his first month he disposed of no less than 16, and is keeping up the average pretty well today. As Burns points out, this means hard work and plenty of it. From 7 to 8 o'clock in the morning, and from 5 to 8 in the evening he is always at the showrooms. From 8 A. M. to 5 P. M. he is busy making calls—generally on the seat of a truck.

Bloomington has a population of 29,000, so that there is a big market in the city itself. Burns broke into the business, being a stranger to the town, by calling on the tradespeople. But he did not begin with the idea of peddling trucks.

Getting the Customer's Confidence

He took his time, and studied the needs of the prospect. Then he discussed the question from every angle. Sometimes he would decide that his product was not suitable for the business, and he would say so. All through these transactions the prospect would gain the impression that Burns was, far from forcing a Ford truck on them, advising them as a friend. If he sold them a vehicle, he would not forget them. Occasionally he would telephone and inquire how they were getting on with the truck; sometimes he would call in and discuss business matters with them. Back of all this is the idea of making friends of prospects and buyers. It is undoubtedly personality in this case that impels these people to telephone, or even write, Burns when they hear of a prospect for him. Seventy per cent of his business today is **done through contacts provided by old customers.** This is the reason why Burns claims that the three essential factors of salesmanship are:

To be convinced of the value of your product and know it from A to Z.

To understand human nature and know how to influence it, and

To know one's self and have faith in one's own selling ability.

Sells Complete Transportation

Every truck must be sold as a complete transportation unit which will most efficiently carry out the work it has to do. Therefore, the sale must not begin or end with the chassis. The size of the unit, its tire equipment, the capacity and type of body, have also to be considered. In the case of Ford trucks it is sometimes advisable to install a supplementary gear also. These are the things the salesman must know about the truck he is selling if he is to give the fullest service before sale to his customer. Service before the sale often carries as much weight as service after the purchase in keeping the prospect sold.

Another factor in the securing of prospects is the display of the various types of vehicles. In the case of the Rue Spencer Co. an appreciable amount of business has been done by parking a couple of trucks on the sidewalk. Many people stop and inspect them there where they would never enter a showroom or perhaps never notice them through a window, while driving by.

Then too, some sales have been influenced by the purchase of supplies from prospects. Such organizations as the Rue Spencer Co. require lots of coal, gasoline and other commodities. If Burns discovers a prospect handling one of these lines he sees that a small order goes through. Shortly afterwards he calls on the prospect, and he is no stranger.

There is no royal road to success in selling, is Burns' view—it means the coordination of many small factors and little influences, painstakingly applied, as the foregoing shows.

As to future prospects, the Rue Spencer Company believes that 1925 will be an exceptional year for truck sales. More farmers are buying and more prospects are making themselves known. But the most favorable sign is that the buyers are slowly but surely getting away from the buying on a trade principle. Possibly this is due to the realization of dealers generally that this particular form of cutthroat competition does not pay. Who knows?

Egypt in Market for Bus Chassis

A light truck chassis for bus purposes is the principal demand in Egypt according to a dispatch just received by the Department of Commerce from Trade Commissioner May at Alexandria. The truck bodies, it is advised, are manufactured locally.

"Let People See What You've Got to Sell," Says A. F. Burns. He Keeps His Samples on the Sidewalk

Cashing in on the Salesmen's Meetings

By FRANK H. WILLIAMS

"IT'S a rather odd thing," said the old-time commercial car salesman who is constantly hanging up new sales records in spite of his advanced years and in spite of the fact that he has been in the business since Ford meant little or nothing to the gaping world, "but the one thing that has done more for me in helping me make sales has been the salesmen's meetings!

"I know how some commercial car salesmen feel about such meetings. They feel that such meetings are the limit, that they are wasting time attending such gatherings and that under the best circumstances they can only get some good laughs out of the meetings.

"Not so with this wise old bird. Right from my first entry into this business, I've always looked at salesmen's meetings as real opportunities for me to get hold of things which would be of immense help to me in making sales and in running up higher profits. I'm going to continue to look at them in this way and I have all the confidence in the world that they will continue to be as big a help to me in the future as they have been in the past.

"But let me tell about some of the things that I get out of these meetings. By doing so I will probably be giving worth while pointers and suggestions to other salesmen which will be of help to them in getting more business and in making more money.

"In the first place, I look upon every salesmen's meeting I attend **as an opportunity for getting new selling hints.**

Beware the Costly Rut

"I realize that, like practically every other businessman, I'm always likely to get into a rut if I don't watch myself and take steps to keep out of the rut. And, of course, once the commercial car salesman gets into a rut **in the way he approaches customers and in the way he presents his arguments,** he's out of luck and his sales drop with a dull and sickening thud.

"But, by getting new selling ideas at the salesmen's meetings I am able to keep right up to date all the time in the way **I approach customers** and in the way **I present my arguments** and in the way that **I close sales** and all that sort of thing.

"I get the new selling hints from the salesmen I come in contact with at the salesmen's meetings by definitely trying to get them. I pay strict attention to all the things that go on in the regular formal gatherings of the meetings. I listen to the things that the speakers have to say about selling problems because I know that they wouldn't be called upon to speak unless they had something worth while and helpful to say.

"But the most profitable part of each salesmen's meeting so far as getting new sales suggestions goes, comes in **talking with the salesmen during the intermissions and after the regular meetings are over.**

"Whenever possible I get hold of some live wire salesman and ask him some questions, something like this:

"'I hear you've been going big these past months. They say you've put over some cracker jack sales and have sold to people who couldn't be sold by any of the other salesmen who have tackled them. I wish you'd tell me how you do it. I'm always looking for good information of this sort. What is the hardest sale you have made during the past few months and just how did you put it over?'

"This sort of talk nearly always gets them started talking because the average successful salesman gets a great kick out of talking about himself and telling about the big things he has done in a selling line. So, after I start 'em going, they keep right on going and they spill a tremendous amount of mighty valuable selling stuff.

"Time and again in this way I've gotten hints and suggestions which have been of the utmost possible benefit to me.

Builds Up Enthusiasm

"Then, another way in which I cash in strongly on the salesmen's convention is by getting a fresh start on the enthusiasm which is so vitally important in making a success of this business.

"Enthusiasm, to my way of thinking, is just **about the prime requisite** of the successful commercial car salesman. If the salesman has enthusiasm for his work, then he is quite sure to be a success with all other things being equal. But if he hasn't any enthusiasm for his work, if he feels that he is in a bum game and if he is always figuring on getting out of it and getting into something else, then he is quite sure to be a dismal failure in selling trucks.

"Consequently, I do everything possible at all times in trying to keep my enthusiasm up to the boiling point. I feel that there is no mystery about enthusiasm. I feel that it is possible to augment enthusiasm just as it is possible to increase a person's knowledge of any subject or learn to like oysters or do similar things. I feel that if the matter of enthusiasm is approached intelligently and scientifically that it is always possible to control enthusiasm and make it of any desired degree at any desired time.

"So, as my enthusiasm flickers and sometimes dies just as that of any other salesman does, I always watch carefully for ways and means of increasing it and take advantage of these opportunities to the utmost.

"And one of the very best ways of increasing enthusiasm is by going to a salesmen's convention and saying to myself when I do go:

"'This is going to be the best salesmen's convention I have ever attended in all the time I've been selling commercial cars. The speakers for this convention are the best I've ever had the pleasure of listening to and I'm absolutely certain that I'm going to get a lot of stuff out of this meeting that will be a great help to me in making more sales. I sure am glad of the privilege of going to the meeting and being in on such a live wire proposition and meeting such a splendid bunch of good scouts.'

Getting in the Right Frame of Mind

"So, even before the meeting starts, I'm in a happy, cordial mood. I'm eager for the meeting and I'm thoroughly convinced that it is going to do me a world of good.

"So, also, I'm in the mood for seeing only the best of the convention and getting the best out of it.

"The result of all this is that I do get a tremendous amount of good out of the meeting and I look only on the bright side of everything that is said and done at the meeting and I come away from it with a fine enthusiasm which lasts me for many more weeks.

"There's no way I know of getting such a renewal and increase of enthusiasm as to go to a salesmen's convention in this mood I've described with a full determination in my heart to be enthusiastic about the whole proposition and get a big increase of enthusiasm out of the affair.

"Still another way in which I cash in to the utmost on every salesmen's convention I attend is by finding out what's doing in the business.

"I get the salesmen who are also attending the meeting to tell me what their prospects have to say about business in general and about trucks in particular. I get the salesmen to tell about new uses to which trucks are being put by the people to whom they have sold them. I find out what accessories are proving most popular with truck users and all that sort of thing.

"All of this enables me to tackle the job of selling with more thorough understanding and with a surer foundation. It enables me to show prospects conclusively that I am right up to the minute all the time and all this helps greatly in getting the conldence of the prospects and in making sales to them.

"Yes, salesmen's conventions and meetings are always big opportunities, to my way of thinking, and I've never yet failed to cash in extensively on every meeting I've attended. They always offer worth while ideas and suggestions to other commercial car salesmen which they can use to good advantage themselves."

Electric Traction Representatives Discuss Motor Bus Adaptability and Regulation

Mid-Year Meeting of A. E. R. A. Draws Big Attendance. Zoning System for Traction Lines Predicted. Co-ordination of Buses and Trolleys Necessary. Managing Director Appointed

THE two-day mid-year meeting of the American Electric Railway Association, held at Washington, D. C., last month again demonstrated that the electric traction industry is taking the motor bus seriously, notwithstanding the fact that many traction officials are still considering the bus as an enemy or a necessary evil. The general feeling expressed at the meeting in regards to the adaptability of the bus, indicated that the traction men are still viewing the bus too much as a competitor rather than as a medium with which to serve the public.

"Sell transportation," said Peter Witt, one of the speakers, "It seems that a man who can't sell the bread to starving people ought to be able to go out and sell transportation, because a poor ride is still better than a poor walk with 99 per cent of the people. I think it is the easiest thing in the world to sell, and when the railroad fraternity of this country gets down to the point where it will appreciate the fact that it is a merchandiser of wares, this industry will go forward with such leaps and bounds as it has never witnessed in the past, when you arrive at the point where you realize that you are selling people that which they want."

Mr. Witt Presented the Car Rider's Viewpoint

Mr. Witt, who was formerly Street Railway Administrator, of Cleveland, Ohio, was invited to present the car riders' viewpoint of the street railway problem, and as such did a very good job of it. He did not hesitate to tell his audience exactly what he thought of conditions as he found them after making a survey in 19 cities. He said, "he had ridden cars until he was sore but satisfied."

He advised railway owners to get acquainted with their own product, so that they would be able to appreciate the feelings of the people that they are doing business with.

"You know," he said, "most of the people who are engaged in transportation seem to look upon their customers as enemies. It is the most remarkable business that you can imagine, where every owner thinks that every fellow that gives him a nickel is his enemy. You sort of have an attitude toward him like a merchant would have if he put a bulldog in front of his store after he spent money in advertising a cheap product. It doesn't work that way."

Can't Make Transportation Too Good

"You can't make transportation too good. The better you make it, the more car riders you will sell, and the worse you make it, the fewer car riders you will sell. Now, you have got to understand that you are merchants, that you are selling something that people must have, and that people are eager to buy if you will merely deliver the stuff that they want."

Mr. Witt related some of his experiences in the various cities he visited, many of which were exceedingly humorous, indicating that the owners of the traction lines were not living close enough to their own businesses.

"Can you wonder," he said, "that sometimes the car-riding public doesn't take kindly to the trials and tribulations that you go through, when they see such nonsensical performances? That is patent, you know, when you go out if you merely observe those things. You can't observe them if you stay home; you can't get next to them if you go down to Young's Pier at Atlantic City, but if you travel all over the counrty you will become acquainted with them."

General Guy E. Tripp, chairman of the Westinghouse Electric and Manufacturing Co., analysed the advantages of both the bus and the trolley expressed the belief that both buses and trolleys should be under the same control.

"Broadly speaking," said Mr. Tripp, "the bus gives either a special or a de luxe service which will cost more to operate than the street car and must, therefore, in the long run, charge a higher fare. There will be no difficulty in securing a widespread belief in this statement in view of the astounding fact that every seventh person in the United States owns an automobile. Nevertheless there will be a demand for this service because the increasing average incomes of the people permit more and more luxuries, and perhaps the principal limitations to the growth of this particular service will be the fixed capacity of the streets and lack of capacity of the bus to handle "rush-hour traffic."

Serving the Millions During Peak Hours

"But when the bus has completely occupied its field, there will still remain millions of people to whom a low rate of fare is a necessity—millions who must be served at those most important hours of

CODE OF PRINCIPLES

Recognizing that there is a place for the bus in local transportation, the executive committee of the American Electric Railway Association subscribes itself to these convictions:

1. No medium has yet been developed which alone can take the place of the electric railway in moving large numbers of persons during morning and evening rush hours in cities. There is a place for the bus in transportation as an auxiliary of or supplement to and, in some instances, substitute for electric lines.

2. Electric railways are in the business of providing transportation in their respective communities. It is their duty to supply all local transportation, both by electric railways and buses, essential to good public service. When supplying such service by rail cars, buses, or both, they should be protected against competition in the operation of all such lines.

3. Buses should be regulated by law as common carriers and the effort to make bus regulation uniform throughout the United States continued and encouraged.

4. Both buses and electric railways should bear proportionate taxes and other public obligations fairly chargeable to them as public carriers.

the day—the rush hours—and nothing has yet appeared to perform this service except the electric car.

"Therefore, it seems clear that the people will demand or need both classes of service. There is nothing unique in that. You may today go to New York in a perfectly comfortable day-coach, or by paying more you may ride in a parlor car with the luxury of a Nabob."

A discussion of the use of buses as auxiliaries to street railway systems was given by T. R. Dahl, Vice-President of the White Company, and representing the National Automobile Chamber of Commerce. Mr. Dahl commented on the increased use of the bus in the hands of the electric railways by saying "that during 1924 alone the number of buses operated by electric railways more than doubled, while the number of companies engaged in bus operation is nearly one-third larger than a year ago. Particular significance attaches to the fact that the increase in the number of buses has been proportionately much greater than the increase in the number of railways operating buses. In other words, the primary reason for this great development during the year is that railways have found that buses fit into their transportation problems and have continued to add to the number they are operating.

Concerning the Status of the Bus

"There are some conclusions as to the use of the bus which can admittedly be accepted, at least for the present, as major premises.

First, buses are no longer considered as a passing phase of public fancy. They are here to stay. Second, buses cannot supplant electric railways in handling peak loads in congested districts in large cities. The use of the bus by electric railways is, therefore, a question of determining the proper place for each service.

"Buses should be operated as connecting lines between trolley lines and as cross town lines connecting trolley lines where there is no street car cross town line, or where the traffic will not warrant the investment in rails for such lines.

"The bus has its place in congested districts as well as in thin traffic territories. The United Electric Railways of Providence, R. I., and the Youngstown, Ohio, operations, with which you are undoubtedly familiar, are striking examples of the operation of trolley and bus on the same street, the bus taking care of local traffic and the trolley operating as express, or vice versa.

Bus Can Round Out Rail Service

"Other uses that electric railways should make of buses in rounding out its transportation service in its community, is in facilitating the handling of rush hour traffic, to supplement service on single track lines where the traffic has outgrown the single track, for special routes and to meet emergency conditions where the rail lines are not convenient and the flexibility of the bus is essential.

"I do not believe anybody can definitely say where motor buses should be used. Their use is daily extending into new fields. The public is demanding new uses of this facility and to what extended use it may be put within the next few decades taxes the imagination. The American people are inveterate travelers.

"We as bus manufacturers have every desire to co-operate with you in another respect. You are our customers. We desire to sell you buses.

Having sold you equipment we will not indirectly enter into competition with you by financing competitors' equipment. We do not believe it good business ethics to finance companies operating in competition with our customers, either through stock ownership or by time sales that are mere subterfuge.

"In a competitive business where time sales are common and expected we, of course, are compelled to sell equipment on deferred payment plans. We have adopted a plan limiting both the minimum cash required and the maximum of time granted and we will live up to that plan.

"I am, of course, speaking for the National Automobile Chamber of Commerce and I expect from your own experience you appreciate that there are "die-hards" in every association who do not live up to the principles agreed upon by their national organization. The best we can say for them is that with your help we will try to show them the error of their ways.

"There is one more phase of co-operation that in my opinion will have an important effect on how buses should be used by electric railways, and that is a National Bus Association. The American Automobile Association is offering to bus operators throughout the country its facilities as a going users organization in forming a bus group and affiliating that group with the A. A. A.

Independent Operators Form Association

"Independent operators have formed an organization committee to work out a National Association of Bus Operators. Your Association has a committee for the purpose of considering some kind of bus group or organization.

"Three such independent organizations would be fatal to legislative activities and the establishment of policies which the entire automotive industry could support.

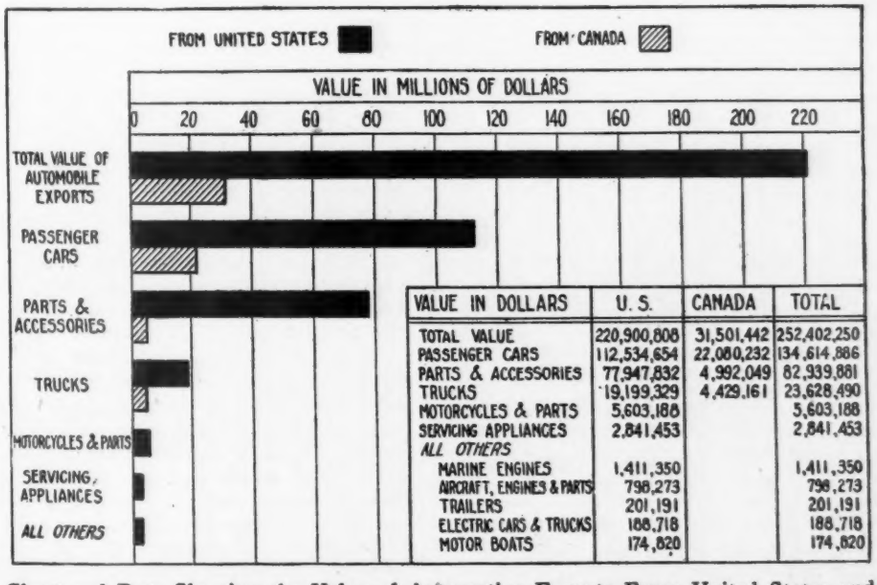
"Haven't we had enough of divided and therefore dissipated efforts? Have we not found in our dealings with each other that when personal misunderstandings have been removed by personal contacts that our competitors are, after all, business men with pretty much the same ideas as our own?

"Are we not big enough, broad enough and have we not had sufficient experience with the national organizations to appreciate that now before these various organizations are formed, all representing pretty much the same business, that we should bring together the representatives of these three proposed national organizations of bus operators in an attempt to work out a plan for one National Association with fair representation for each type of bus operator that can successfully represent this great business.

"To accomplish this purpose the National Automobile Chamber of Commerce again offers you its whole-hearted co-operation. You are large customers of ours. We are directly affected by policies which you adopt regulating your business. We would appreciate the opportunity of being of assistance to you in solving your motor bus problems."

Storrs Heads Electric Railways

On the opening day of the convention, Lucius S. Storrs, of New Haven, Conn., was appointed to the newly created position as managing director for the electric railway industry. A statement issued by the association's executive committee which formally approved Storrs' selection, said his services would be available alike to the public and the companies. Mr. Storrs' headquarters will be in New York. He will take the new position on April 1.



VALUE IN DOLLARS	U. S.	CANADA	TOTAL
TOTAL VALUE	220,900,808	31,501,442	252,402,250
PASSENGER CARS	112,534,654	22,080,232	134,614,886
PARTS & ACCESSORIES	77,947,832	4,992,049	82,939,881
TRUCKS	19,199,329	4,429,161	23,628,490
MOTORCYCLES & PARTS	5,603,188		5,603,188
SERVICING APPLIANCES	2,841,453		2,841,453
ALL OTHERS			
MARINE ENGINES	1,411,350		1,411,350
AIRCRAFT, ENGINES & PARTS	796,273		796,273
TRAILERS	201,191		201,191
ELECTRIC CARS & TRUCKS	188,718		188,718
MOTOR BOATS	174,820		174,820

Chart and Data Showing the Value of Automotive Exports From United States and Canada for 1924, as Prepared by the United States Chamber of Commerce

Air Cleaners Are a Necessity on Motor Trucks and Buses

Dealers Would Do Well to Encourage the Use of Air Cleaners. Engine Wear is Principally Due to Accumulated Road Dust and Not Carbon

ANY mechanic who has ever lapped in a piston appreciates the action that road dust has upon a cylinder wall. In fact there is a great deal of similarity between lapping in a piston in the shop and lapping it in on the road. However, there is this difference, the mechanic knows when to stop, but the road dust that is drawn in through the carburetor keeps right on working. Draining out the crankcase oil at stated intervals helps to get rid of some of the grit but it does not prevent the wear which subsequently takes place when the fresh oil is again contaminated. There is only one way to prevent this unnecessary grinding away of cylinder walls, piston rings, pistons, bearings, etc., and that is by the use of air cleaners.

On farm tractors air cleaners are not a new thing. They have been used on tractors for years. Tractors usually work in clouds of dust and when the tractor manufacturers found that their machines had to be fitted with new piston rings and pistons after a few days running they soon got busy and put on air cleaners.

Of course, the average truck does not work under the extremely severe conditions under which a tractor does, yet the conditions under which a truck ordinarily works are sufficiently severe to warrant the use of an air cleaner.

Dirt is Not Carbon

Air cleaners are not carbon removers, neither are they carbon preventers. What they do, however, is to prevent the accumulation of the so-called carbon which is nothing more than a lot of dust, sand and grit. Many tests that have been made which prove that from 25 per cent to 75 per cent of the formation of carbon, is silicon or road dust. Only from 5 to 25 per cent is actually carbon. Hence it will be seen that by removing the road dust, not only will the wear on the cylinders. pistons, rings and bearings be eliminated but carbon deposits will be reduced on the average of more than 50 per cent.

Carbon formation is but one of the troubles which may be attributed to the accumulation of road dust inside the engine. This abrasive material taken in through the air inlet of the carburetor also develops leaky valves, noisy gears, worn bearings, in fact any moving part in the inside of the engine is subject to unnecessary wear that comes into contact with the gritty oil.

The question often asked is "Are the dust conditions which trucks ordinarily encounter severe enough to warrant the use of the air cleaner?"

In our opinion, an air cleaner is a necessity on most trucks. The value of an air cleaner on a truck subjected to severe dust conditions need not be questioned, but even under mild or comparatively light dust conditions, an air cleaner is still of value for it prevents WHAT DUST THERE IS from entering the engine and by doing this, it prolongs the life of the engine just that much.

Furthermore, it is never known just what conditions will be encountered. While practically the same conditions might be encountered for a year or two, on just one trip where an unusually severe condition would arise, the installation of the air cleaner would be warranted.

Usually the work which trucks are engaged in is of such a nature that there is no question but what an air cleaner is a necessity. Trucks travel more slowly than passenger cars and, naturally, they cannot get away from their own dust; then, too, trucks cannot always keep to the pavements, the very nature of their work taking them on the dusty side of country roads. When engaged in gravel hauling, road building and so forth the conditions are even more severe. In some parts of the country the dust conditions are more severe than in others; the dust is also finer and more abrasive.

The accumulation of road dust in an engine is easily understood when it is realized that for every gallon of gasoline used, over 9,000 gallons of air are required to pass through the carburetor into the engine to form the proper mixture. As the intake velocity of the air at the carburetor opening is from 50 to 150 m.p.h., the suction is so great that even the larger particles of sand and grit are drawn into the combustion chamber.

A four-cylinder engine with a 5-in. bore and 7-in. stroke running at 1,200 r.p.m. requires over 300,000 cu. in. of air a minute. It is, therefore, evident that without an efficient filter, large quantities of road dust, sand and grit are carried into the engine even under the most favorable conditions.

Maintenance Insurance

Motor bus manufacturers are giving the air cleaner more and more recognition as in bus service the advantages of prolonging the life of the engine and the elimination of frequent carbon cleanings mean a matter of dollars and cents in additional revenue. A number of truck and bus manufacturers are now furnishing air cleaners as standard equipment. There are various makes of cleaners on the market, working on different principles as outlined in the brief descriptions which follow of some of the leading makes. A study of these will give the dealer and manufacturer an idea of how these cleaners work.

The A-C Air Cleaner

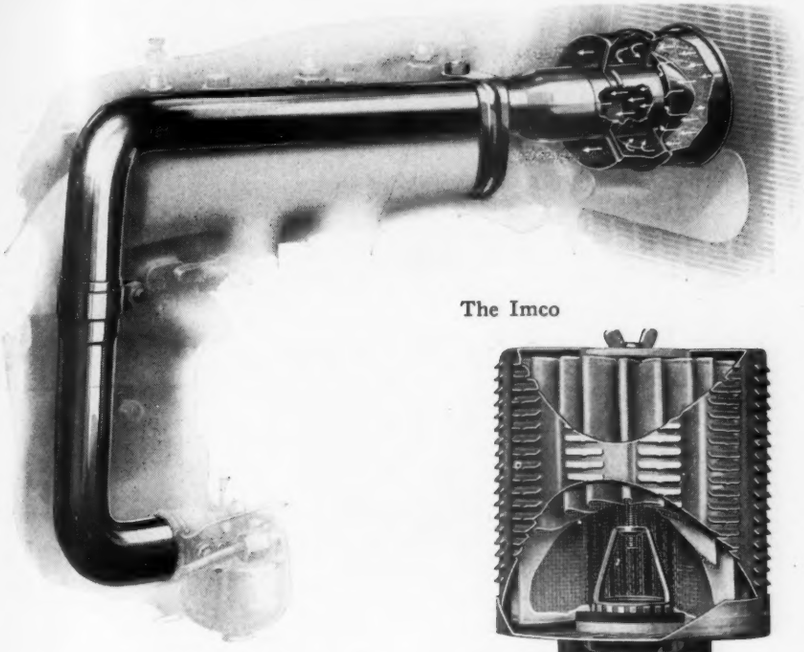
The principle of operation is similar to that of the ordinary cream separator in that centrifugal force is used to separate the air and dust. The suction stroke of

WHAT A PROMINENT BUS BUILDER SAYS

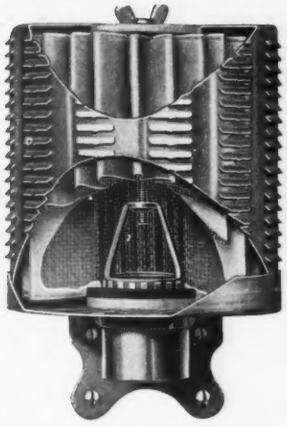
"We consider an efficient air cleaner an absolute necessity on any motor vehicle operating on any other than an asphalt surfaced road, and we think that it is desirable even on the asphalt surfaced road. We have just had a very striking example of this necessity on a —— coach which is running over 200 miles of water-bound macadam road. This, of course, represents the extreme condition. The coach has gone less than 50,000 miles, and now needs a new cylinder block and new pistons. It was not equipped with an air cleaner.

"Some of our four-cylinder coaches operating under similar highway conditions to the one just mentioned above have gone upwards of 200,000 miles, and the piston fit is still practically perfect. We believe that this is possible only because of the efficient filtering of the air entering the carburetor.

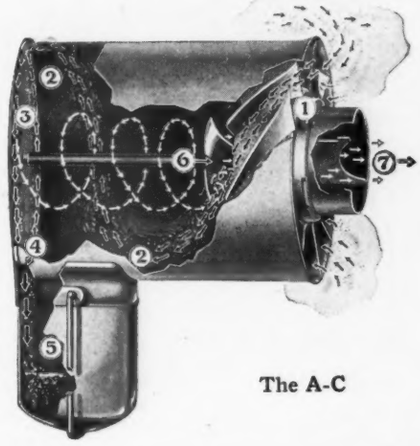
"The cost of a good air filter is slight in comparison to what it can save under extreme conditions, and it is probably justified even under the best highway conditions and we believe that within the next two or three years no automotive vehicle of any kind will be considered complete unless it is equipped with an efficient air cleaning device."



The Imco



The Protectomotor



The A-C

engine draws dust-laden air through directing vanes, which gives it a rapid spirally rotating motion. Centrifugal force separates the dust particles from the air, throwing them against the inside wall of the cleaner.

The spiral movement of the dust along the inside surface of the cleaner wall brings it to the rear circular end. The dust is forced through a small outlet and is collected in a removable container.

The clean air, indicated by white arrows, rotating spirally in the center portion, strikes directing plate (6) and screws itself out of cleaner. The straightened current of clean air leaves the cleaner to enter the carburetor.

It is stated that an amount of dust which will fill the small removable collector (the accumulation of about 20,000 miles of driving) if allowed to pass into the engine would cause an average of ten one-thousandths of an inch wear on parts such as pistons, rings and cylinder walls.

The Imco Air Cleaner

The Imco air cleaner rejects the dust and dirt from the air by the speed and force of the air itself. As the dirt-laden air enters the opening of the cleaner, its speed is rapidly increased so that only the clean air is taken on into the carburetor, while the heavier-than-air particles are shot through and away from the cleaner by the velocity of the air.

The Stromberg Air Cleaner

This cleaner is of the centrifugal type with the air entering uniformly through a series of vanes around the top. A coarse screen protects these vanes from flying stones and large particles of dirt.

The homogenous rotation of the whole body of air produces a sharply defined separating effect and the dirt particles are thrown to the bottom of the cleaner chamber as the air turns upwards.

Connected to the bottom part of the cleaner chamber is an ejector system operated by pressure from the exhaust. The system is so proportioned that all engine speeds and loads there is a slight draft of air from the bottom of the cleaner chamber, at the point where the dirt is separated, out through the ejector nozzle. By this means the dirt separated from the air is drawn out of the cleaner and deposited back on the ground where it came from.

The Protectomotor

This filter consists of a cylindrical, perforated shell, into which is fitted an elongated spider formed of wire screen and covered with felt. The central portion of the spider communicates with a central tube, through which the clean air entering the carburetor flows.

The effective filtering area of the Protectomotor is 200 times the area of the carburetor air intake opening, so that the air passes through the filtering medium at less than 1/200th part of the velocity of the air through the carburetor air intake opening. The velocity being so greatly reduced, the dust, sand and grit is separated mostly by gravity.

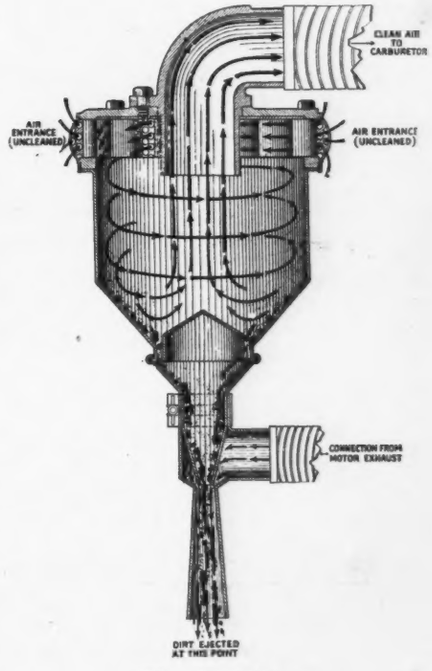
The air does not strike directly on the filtering material, but enters the shell parallel to it, and at so low a velocity that the dust rests lightly on the felt as a result, the accumulated dust is porous, and readily permits the air to pass through it, and for the same reason is easily shaken off by the vibration of the engine. It is discharged through the opening in the bottom of the shell, which thus makes the filter a self-cleaning device.

The Handy Air Cleaner

This cleaner is of the centrifugal separating type and consists of four pieces which are the housing or shell, standpipe, baffle plate and vane assembly. The first three parts are made of drawn steel while the last is a die casting. Consequently the cleaner is very light and can be attached to the carburetor intake with no necessity for additional support.

In operation, air enters at the upper end through the annulus formed by the outer shell or housing and the cap or bell which masks the upper end of the standpipe. Within this annulus are eight vanes as illustrated. These vanes are shaped so that the angle of incidence at the outside is about 45 deg., while the discharge angle at the inner lip is about 10 deg. from the horizontal. These vanes are shaped to produce the maximum rotating effect with the minimum of resistance. By means of the rotating action which is impressed on the incoming air stream the heavier particles are thrown outward and away from the lip of the bell or cap which masks the standpipe orifice. At this point the clean air changes direction sharply

(*Continued on page 60*)



The Stromberg

Do Combined Light Truck and Car Sales Make the Best Dealer Proposition?

This Illinois Dealer Thinks They Do

The Winston Motor Company's Establishment at Joliet, Ill.

DEALERS merchandising a range of trucks are apt to give the heavier jobs more than their fair share of attention because there is a bigger margin of profit and because it is usually as easy to sell a big truck as a little one, once the prospect is located.

At the present stage of affairs, practically all the manufacturers who turn out a truck of 2,000 pounds capacity or under, as their sole truck production, are also engaged in the manufacture of automobiles. As a result their dealers are more or less obliged to combine the sale of the passenger and commercial vehicles. Some of the dealers, having always handled automobiles, do not appreciate the possibilities of the truck end of the business. This, however, is not the position of the Winston Motor Co. of Joliet, Illinois, who handle Dodge Bros. cars and light delivery vehicles and the Graham Bros. trucks.

One Specialized Truck Man

This firm, under the guidance of C. S. Winston, has eight salesmen on the car end of the business who may sell commercials and one specializing on commercial business. Nevertheless the truck sales represent no less than 20 per cent of the total revenue. Light delvery vehicles and trucks up to 1½-tons capacity cater for a very wide market both among fleet owners and operators of only one vehicle. Light delivery vehicles fill the needs of practically eighty per cent of the tradespeople in any medium-sized city.

Trucks and Passenger Cars Complement Each Other

The combination of the commercial and private car business, therefore, considerably helps to level up the peak periods of business. When car business is naturally slack, a drive can be made on trucks. There are, however, other aspects of the combined business which are not always appreciated. Under the stress of uneconomic competition the dealer is very often called upon to consider a discount proposition or bad trade-in. In such circumstances a little independence is a very useful thing. Not having all his eggs in one basket, the combination dealer can more easily afford to turn down questionable business.

Again, such an establishment can organize its service department to take care of both ends of the business without any further great outlay of capital. These are some of the factors that have contributed to the prosperity of the Winston Company. Their two big talking points in the light truck end of the business, are the quality of the products and their organization for service. In the quality argument they have the reputation of the automobile to back up their statements. Should the prospect not be familiar with the Winston Service Department, the salesman has ready his book of photographs that clearly demonstrate the extent of the organization and the capacity of its equipment to handle his requirements. There is no doubt that the business premises of the dealer really influence the prospect by stimulating his confidence. He realizes that here is something tangible, evidence of the faith of an organization in the products it handles, and something that is not likely to vanish in the night.

In passing it is interesting to learn that Mr. Winston usually manages to sell his clients on the value of trucks as advertising media. He actually offers each one $13.00 a month for the advertising space on their vehicle. So far he has not been taken up on this offer—proof that the force of his suggestion is appreciated.

In a small town like Joliet, and where the business is spread over two counties there is very little to gain by displaying trucks in windows. As long as there are sufficient notices to indicate that trucks are sold there, the space is better devoted to automobiles. A hundred car buyers will come to the showrooms where one truck prospect will make himself known according to Winston. Truck business whether light or heavy, will never be built up in the showroom. It is necessary nowadays to go out after car prospects—and they are not nearly so elusive as the truck buyer.

Handling Trade-ins

A trade-in allowance is something that C. S. Winston refuses to countenance as such. A used truck offered by a purchaser of a new vehicle is regarded as something to be purchased, and which will have to be either sold again or junked. The used trucks, therefore, are valued by

the shop superintendent, and approximately 25 per cent less than this figure is offered to the prospect. This 25 per cent covers the cost of putting the machine in good condition for resale, with the unavoidable overheads, etc. Naturally, this means the turning down of many deals. There is no dickering over the value. The offer is made, and it stands. Deals are lost, but **those that are made show a profit.**

And C. S. Winston capitalizes on this stand much more often than he otherwise would, simply because of a splendid piece of sales ammunition provided him by a firm of truck manufacturers who wanted him to handle their products. This useful weapon consists of a series of letters advocating the merits of the inflated price system of marketing trucks. Increase the list price by 25 per cent, they say, and you will have something to give away to the "Smart Alecs" who think there is something for nothing in the truck market. What could be more effective as a piece of educational propaganda for the truck buyer? It certainly has clinched many a sale for the Winston Co.

These then are some of the things that enable the Winston Co. to make good in the truck business, the reason why they never let themselves get into the position of **having** to sell, the secret of that little independence that enables them to say "no" to an unprofitable deal. Competition is keen in the light truck field, but by combining the two branches of automotive business, they are able to go slow on the one side and gradually build it up into a sound and paying business as the truck buying public comes to realize that the principles on which they operate are soundest and best for all concerned.

Creating Business for Truck and Bus Prospects

MORE trucks and buses would be sold if the prospective purchasers were assured that there would be sufficient and constant employment for the vehicles when they had bought them. So thought C. J. Schellings, who sells Ruggles vehicles, and his subsequent experience has confirmed his opinion.

Some months ago, Schellings approached the traffic manager of the Milwaukee Northern Railroad, and sold him on the possibility of increasing the volume of business handled by the interurban electric line by the installation of independent feeder services to the terminal at Sheboygan. He was able to secure a contract for this service from the railroad, so, armed with this, he set out to find his operators.

He discovered two local prospects and offered them the contract along with a couple of Ruggles trucks. They accepted and went into business right away, by opening two lines, one to Two Rivers, 36 miles from Sheboygan, and the other to Chilton, 23 miles away.

As the traffic is nominally handled by the railroad company, and through way bills are issued, the shippers deal only with the railroad and naturally have more confidence in the service than if the business was solicited by the truck operators separately.

This particular service has now been in operation several months and has proved far more successful than the operators ever anticipated. Shippers in the towns to which they make deliveries have noted these vehicles and the regularity of their operation, with the result that the operators have been offered a great deal of return load business. For all this traffic the truckers are receiving around 1 1/3 cents per 100 lb. per mile, according to classification.

As an example of the advantage this service offers the shipper, the shipments of fresh fish from Two Rivers, formerly carried by express direct to Chicago at $2 per 100 lb., is now handled by the truck line and a through service car of the railway at $1.50 per 100 lb.

It is therefore no wonder that new equipment and routes will be added before long, with advantages to the truck salesman who had the foresight to inaugurate the system.

As Schellings says, there should be no difficulty in getting a hearing from the traffic managers of the steam and electric railroads, when a proposition of this kind is involved. Apparently the trucker can operate at lower cost than can the railroad and without any difficulties in the matter of franchise.

RULES FOR SUCCESSFUL BUS OPERATION

By W. C. PARKER, Manager Bus and Taxicab Division, Reo Motor Car Company

Rules for **successful Bus operation** are **easy** to follow. First, **buy right!**

Deduct the price of any good small BUS from that of the big BUSES and divide the difference by the capacity difference. How much does this show you must **invest in each extra seat?** Can extra seats at this price be profitably operated? **Would you pay** that much per seat for all seats?

If you would not pay on that basis for the seats that carry your average load **what makes you think** you can afford **such a high investment** in the seats that are **only occasionally used?**

Multiply your trips last year by your seats and **deduct** the total number of passengers carried. The result is the reason for a medium sized BUS.

Most New York theatres are small. Owners prefer a capacity of fewer people to the **occasional overflow** and risk of paying big overhead on **empty seats.** Stand-by BUSES of lower cost aim at the solution.

Enough chairs to handle the rush hour needs promptly would **bankrupt** a barber shop; a BUS operator should be as **farsighted** as a barber.

A BUS **seat hauled empty** is the most **perishable** of all commodities; the loss is complete—there is absolutely **no salvage.**

Don't forget while you are looking for **Feeders** that oversized BUSES are **Boarders**—not **Producers.** BUS **success** depends upon **correct capacity.**

The final answer to **better service** is Frequency. **Profits** must be **saved** as well as **earned.**

C.C.J. SHOP IDEAS

THESE two pages are primarily designed to help service station repairmen in exacting economies in time, labor and money. Salesmen, however, can also profit by scanning over these practical hints. Familiarity with expeditious and money-saving methods in truck repairs and operation will enable the salesman to talk the language of the average buyer of today, who is more conversant with the important details of truck operation and maintenance than ever before. A money-saving idea will not only pave the way for intelligent attention on the part of the prospect, but will often result in a sale. The ideas contained herein are not confined to any particular class. Attention will be given wherever merit warrants it.

No. 1205—Locating Engine Knocks

Unless the ear is tuned through experience to note the exact location of an engine knock it is difficult to determine just where the knock is without the aid of a testing device. Such a device can easily be made with little expense and trouble by using an old carburetor float and a 5/16-in. rod. One end of the rod, which should be approximately two feet long, is inserted into the float at the point where the needle valve formerly entered. Secure the rod into place by applying solder at the points where the rod enters and leaves the float chamber.

In use, the free end of the device is brought in contact at various places on the engine, with the float, which now functions as a drum, close to the ear until the exact location of the knock is established. Without the use of the device the various noises incident to an engine in operation come to our ears in a confused medley of sounds. The device, however, transmits the sound vibration of a specific area up through the rod and into the drum where they are amplified. The unit merely acts as a separator of sounds and an amplifier of single sounds.—George Huss, 32 Carnell St., Rochester, N. Y.

No. 1210—Armature Tester

The device illustrated is offered as a quick method of testing armatures for grounds or open circuits. It consists of two head stocks carrying threaded spindles, retained in place by two lock nuts. Two metal arms, secured in the center of the board, extend upward contacting on two sides of the commutator. Electrical connection is made to the two arms by means of two terminals adjacent to each arm. The test is made by using a Hoyt rotary type ammeter in the circuit.—E. V. Parsons, Amagansett, N. Y.

No. 1209—Removing a Metal Float

Generally much difficulty is experienced in removing a metal carburetor float from its housing. No projection exists on the float by which the float can be extracted and no special tool is available that will fit into the float hole.

A very simple way of removing it, however, is accorded by employing a cotter pin. Expand the two legs of the pin sufficiently so that the tension given them will enable the legs to again spring apart after insertion into the float hole. The pin will spread, thereby providing a purchase so that the float can be easily lifted out.—C. Pankowski, Jersey City, N. J.

No. 1208—Cylinder Block Assembling

Replacing cylinder blocks that are cast in one piece of four or more cylinders has always been quite a job. To simplify this job the jig shown in the sketch is offered. It is designed to hold the pistons in place while the assembly is being made. It is composed of two pieces of wood secured at each end by a metal tie bolt. When the cylinder block is being installed the engine is turned over until the pistons are all of an equal height the jig is then placed on top of the crank case with just enough strain to hold the pistons perpendicular.—A Reader.

No. 1211—Valve Seat Reaming

Occasionally valve seats are burned or glazed. In making repairs the mechanic will discover that either the reamer fails to take hold or that the reamer will shortly become so dull that it will not cut anything.

A simple remedy that will not only save time but the cost of a new reamer is suggested in the accompanying illustration whereby the glaze is removed before the valve seats are reamed.

A hole just large enough to take the valve stem is cut in a strip of emery cloth, 1 x 6 inches. The emery cloth, cutting-face down, is placed between the valve and the seat, and the valve is then turned with a brace screwdriver. A few turns will remove the glaze and save a lot of arduous work and unnecessary worry.—A Reader.

Commercial Car Journal will pay $1 for each new idea which it accepts, or as much above that amount as the idea is worth. Simply tell us exactly how it is done and send a rough pencil sketch showing clearly the method employed or the device used.

No. 1206—Correct Lining Fitting

To fit brake lining to an internal brake shoe, the way it comes from the stock room already cut to dimensions, is no simple matter. Skill and knack is required to lay the lining smooth and tight against the metal. But by the use of the clamps shown in the sketch this task is greatly simplified and a snug job can be made with a considerable saving in time.

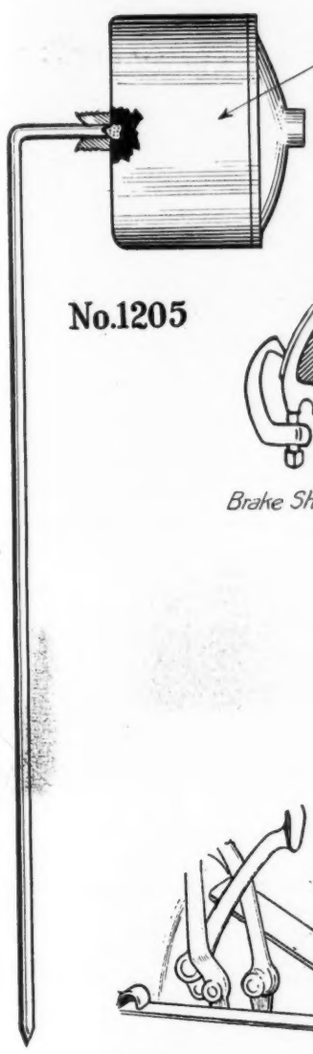
The body of the clamps are constructed of soft steel measuring ¼ x 1 x 5 in. These pieces are curved in a 9 in. radius. One end is bent over at a right angle, 1 inch long, and the other end is bent over to form the teeth, which are ¼ in. long. The teeth are formed by grinding the end of the clamp on an emery wheel, and slotting with a hack saw. The other end of the clamp is drilled and tapped for a ¼ standard adjusting screw. The clamps are used as shown in the sketch, with the teeth forced into the lining, and with just enough pressure on the screws to hold it snugly in place without tearing it. In this manner all holes can be drilled and riveted at one time.—A Reader.

No. 1207—Plugging Leak Around Gasket

By using a piece of shellac soaked string around oil leaks around the gasket between the Ford transmission and universal joint can be stemmed without the necessity of replacing the gasket. Loosen universal cover bolts and slip it back. Cut a piece of string to the required length, soak in shellac and pass it around the outside of the bolts. Replace cover and tighten bolts.—Lotsey Toth, Jr., 13 years old, Paterson, N. J.

No. 1212—Movable Rear Axle Stand

The stand shown herewith is designed to save time and labor when replacing or removing the rear axle assembly from a Ford chassis. It is mounted on rollers. The two rear uprights support the axle housing and the front member the tube. The height of the front upright is such that the spline on the drive shaft of the axle will enter without juggling. Standard tubing is used in the construction of the stand. All members are welded together.—E. V. Parsons, Amagansett, N. Y.



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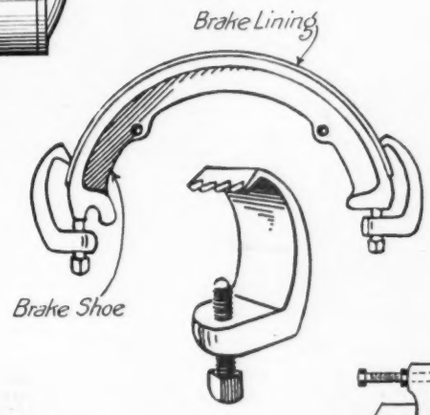

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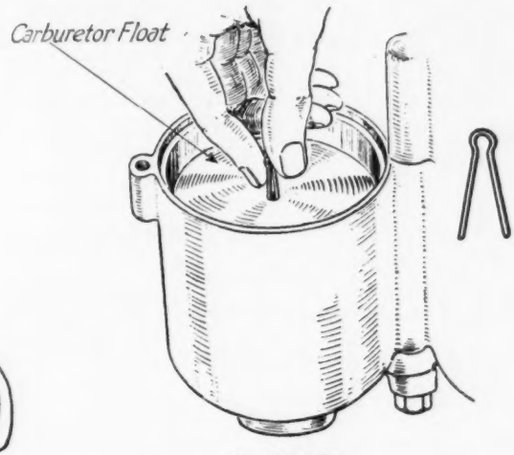

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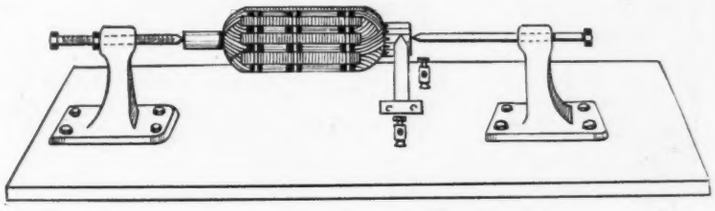

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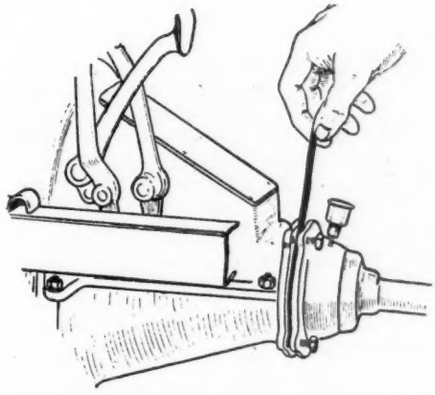

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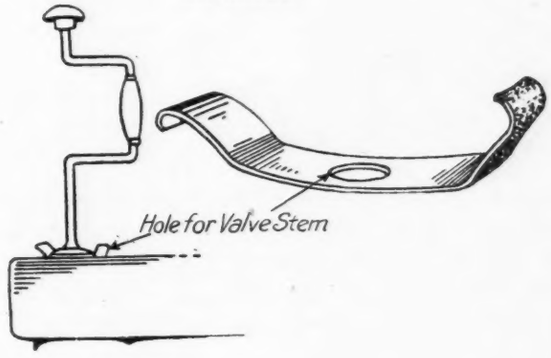

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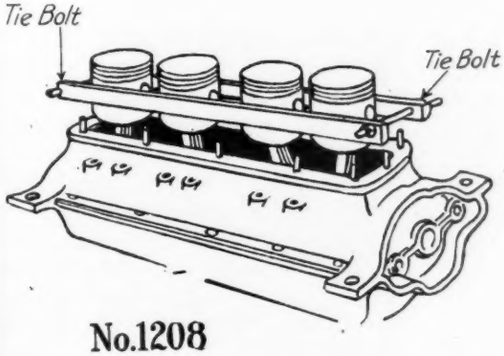

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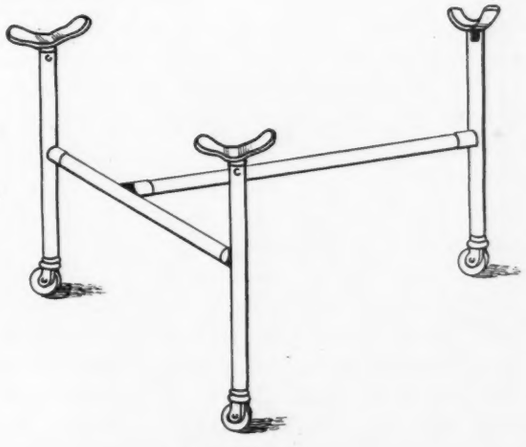

No.1212

The Style Appeal

THE success of the National Laundry of New York has aroused considerable interest in the laundry field, and this picture has some bearing thereon.

Mr. Sol Kashman, owner, doesn't know all of his customers. They don't know him. His laundry is a very attractive place, and it would be a good thing if everybody who does business with him could go there. But not everybody does.

Everybody *can* see Mr. Kashman's drivers and vehicles because they come right to the door of the apartment or house. Customers can see how good looking they are, tell whether they are quiet or not, and see whether there is anything unfavorable about them.

Note the neat business-like driver entering the vehicle by means of the bumper step—a patented construction which saves drivers' time and energy. Note the attractive appearance of the vehicle—one of his fleet of Ward Electric Trucks. Mr. Kashman is proud of these vehicles, but more than that, his customers are very much pleased with them.

You can't blame customers who are particular about their apparel and their homes for not wanting laundries to deliver with horses and wagons. You can't blame them if they prefer quiet trucks to noisy trucks chugging away in front of their homes.

Mr. Kashman says that the advertising and good-will value he gets out of this fleet of Ward Electrics is simply a plus value that costs him nothing. He pays attention to this feature because he's thorough, but the real reason why he delivers in Ward Electrics is that they are more economical and longer-lived than any other vehicle on frequent-stop laundry routes. Mr. Kashman ought to know—he has used all three types of delivery equipment and he says that for his short haul routes he figures electrics are the best thing by far.

Of course Mr. Kashman isn't the only business man who knows this. There are many Ward Electrics in the laundry business now and in numerous other businesses. Any business man who does not know about them can find out how to cut delivery costs and get better-looking and quieter equipment by writing to the Ward Motor Vehicle Company, Mount Vernon, N. Y., and asking this very simple question: "What does it cost to collect and deliver with electric trucks?"

The style appeal will be a plus value.

EDITORIALS

Cutting the Overhead

FROM a theoretical standpoint, the truck dealer should confine his efforts to selling trucks exclusively. Most truck dealers, however, would not progress very far if they endeavored to confine their activities only to selling vehicles. The selling of trucks is the marketing of transportation, and the transportation that sells best is that which cost least.

That being so, the dealer finds it necessary to ensure that the buyer of his vehicles will obtain the best and most continuous service therefrom at the lowest cost. That is the why and wherefore of the service or maintenance department. Many dealers maintain departments as a necessary evil and do not view them as a source of additional income, which they should be.

These and many more dealers do not study the economies which can be effected in the maintenance department. They know they have enough equipment to care for any job they are likely to be called upon to undertake, but they do not know whether their machine tools are of the right kind or size, or whether the work is being organized in the most efficient manner. The work of the maintenance department is so subordinated to that of the sales force that its full influence on the final profits and on the truck prospect generally is often underestimated or entirely overlooked.

Theoretically, again, the very existence of the service department should stimulate sales, for the buyer knows that he can get ready expert attention at short notice. Yet maintenance service can hardly be classed along with advertising expenditure. It is a special service that costs ready money, and a lot of it, and its value from the point of sales influence can rarely be determined in dollars and cents. Many truck dealers, we have interviewed during the past few months, seem to overlook the fact that if overheads are to be kept down, and profits up, the service department must be a self-supporting institution. They give away part of their profits; they give ridiculous prices for used junk which they undertake to sell without cost, and they sell service at prices competing with those of properly organized repair stations.

Where do the profits come in? These are the people who need to organize; to put as much organization into their maintenance departments as they do in their selling arrangements. They need the right kind of equipment, the right kind of men, the right kind of premises, and an efficient system of control over the whole.

Boy! Page Mr. Sherman

ADDRESSING the mid-year meeting of the American Electric Railway Association, at Washington, D. C., Mr. T. R. Dahl, representing the National Automobile Chamber of Commerce, is reported as saying this:

> "We as bus manufacturers have every desire to cooperate with you in another respect. You are our customers. We desire to sell you buses. Having sold you equipment we will not indirectly enter into competition with you by financing competitors' equipment. We do not believe it good business ethics to finance companies operating in competition with our customers, either through stock ownership or by time sales that are a mere subterfuge. In a competitive business where time sales are common and expected we, of course, are compelled to sell equipment on a deferred payment plan. We have adopted a plan limiting both the minimum cash required and the maximum of time granted and we will live up to that plan. I am, of course, speaking for the National Automobile Chamber of Commerce and I expect from your own experience you appreciate that there are "die-hards" in every association who do not live up to the principles agreed upon by their national organization. The best we can say for them is that with your help we will try to show them the error of their ways."

As one association to another, so-to-speak, "Having sold you equipment we will not indirectly enter into competition with you by financing competitors' equipment."

Without discussing the propriety of such a proposition, we wonder if it can be put into operation, and incidentally it will be interesting to know who the "die-hards" will be.

Many a motor bus which was sold and "financed" became "competitive" only after some electric railway line entered the motor bus field. Many bus lines have opened new transportation routes that afterward were subjected to street railway bus competition, following them in the same field.

Electric railways have never hesitated to parallel steam railway lines, nor was the equipment builder ever restricted from selling to electric street railways because he sold to steam companies, or vice versa.

We are for proper regulation and protection of franchises which are giving adequate service—**but why kid one another?**

News of the Trade

U. S. Supreme Court Decrees Interstate Highways Open

Court Denies States Right to Interfere With Interstate Commerce. Prohibition of Competition Unlawful

TWO decisions of far reaching importance in the regulation of interstate motor vehicle traffic were handed down a few days ago by the United States Supreme Court. Both of the verdicts emphasized that in no case can a state evade the federal control over interstate commerce.

In cases brought from Washington and Maryland the court denied that states may interfere with interstate commerce moving over their highways in motor vehicles. In deciding a case brought by A. J. Buck against the director of public works of the State of Washington the court held that the state could not refuse to authorize licenses for buses over that section of the Pacific highway lying within its borders.

Supplementing its opinion that unreasonable burdens must not be imposed by the states upon interstate motor vehicular traffic, the court, in deciding a case brought by George W. Bush & Sons held that Maryland cannot decline to permit such vehicles to use its highways.

Declaring that appropriate state regulations adopted primarily to promote safety upon the highways and conservation in their use not obnoxious to the commerce clause where the indirect burden imposed upon interstate commerce is not unreasonable, the court asserted that the provisions of the Washington law under attack were of a different character. The primary purpose of the Washington law was declared to be not one of regulation with a view to safety or to conservation of the highways, but the prohibition of competition.

"It determines not the manner of use, but the persons by whom the highways may be used," the court stated, adding that the Washington statute had the effect of regulating interstate commerce and therefore was an unlawful obstruction, in violation of the federal constitution. Both cases involved state permission to operate a motor vehicle line for public hire over an interstate route. The court points out that the Maryland case did not involve, as did the Washington case, the question of the use of a national highway partly constructed with funds furnished by the federal government; it was asserted that such a difference did not affect its position that unreasonable burdens must not be imposed by states upon the right guaranteed by the constitution of unrestricted interstate commerce.

It was the intention of congress, the court stated, that state highways shall be open to interstate commerce. It was immaterial, in the construction of the interstate commerce features presented in the two cases, the court said, whether the obstructions were imposed, as in the Washington case, by statue, or, as in the Maryland case, through discretion conferred upon a public service commission.

Federal Motor Celebrates

Federal Motor Truck Co., organized in 1910, with its original capital of $50,000 now increased to $2,000,000 without refinancing or reorganizing, is celebrating its 15th anniversary. Another fact worthy of note in connection with the company is that Marvin L. Pulcher, its founder, is still president and general manager, while the board of directors has remained the same throughout its entire history.

Coming Events

CONVENTIONS

Good Roads Convention—13th annual convention United States Good Roads Association, 9th annual convention Bankhead National Highway Association and United States Good Roads Show to be held in Houston, Texas, April 21-25, 1925.

Automotive Equipment Association—Summer Convention to be held June 22-27, 1925, at the Broadmoor Hotel, Colorado Springs, Colo.

National Automotive Convention—To be held in General Motors Bldg., Detroit, Mich., May 20-23, under the auspices of the N. A. C. C., M. A. M., S. A. E., A. E. A., Am. Elec. Assn. and A. M .A. Alvan Macauley, chairman of the Service Committee; Harry R. Cobleigh, secretary.

Toledo, Ohio, March 21-28, 1925—1st annual Motor Bus, Truck, Tractor and Good Roads Exposition will be held in the Terminal Auditorium. Motor buses, trucks, road building machinery and accessories. H. V. Buelow, manager.

SHOWS

Detroit, Mich., May 20-23, 1925—2nd annual Automotive Maintenance Equipment Show to be held in General Motors Bldg., under the auspices of the N. A. C. A., M. A. M. A., N. A. N. A., S. A. E., A. E. A., Am. Elec. Assn. and A. M. S. A. Miles, manager.

Kansas City, Mo., Oct. 19-23, 1925—Annual A. B. C. B. Beverage Exposition, under the auspices of the American Bottlers of Carbonated Beverages. Show manager, James Vernor, Jr., Chairman A. B. C. B. convention and exposition department with headquarters, 231-237 Woodward Ave., Detroit, Mich.

S. A. E. MEETINGS

March 16—Cleveland Section. Road and Riding Ability. Harry Horning, Waukesha Motor Co., Old Colony Club, Hotel Cleveland.

June 16-19, 1925—Summer Meeting, White Sulphur Springs, Greenbrier Hotel.

March 19, 1925—Detroit, Mich. Sectional meeting. Castings in Permanent Molds, by Marc Stern and D. H. Meloche.

March 26, 1925—San Francisco, Cal. Group meeting. Effects of Engine Operation on Lubricating Oils, by L. Wagner.

March 27, 1925—Los Angeles, Cal. Group meeting. Air Cleaners, by Prof. A. H. Hoffman.

April 7, 1925—Buffalo, N. Y. Transportation meeting.

April 9—Indiana Section. Talk by F. E. Hunt, head of electrical division, General Motors Research Club.

Motor Truck and Bus Division Established by A. A. A.

This Announcement of the American Automobile Association Hailed as Most Significant Move in Years

ESTABLISHMENT of a commercial truck and commercial bus division as a part of a program of expansion and increased service, just announced in Washington by the American Automobile Association, is hailed in automobile circles to be one of the most significant moves that has been made in the automotive field in many years, in that it contemplates bringing under one head all the owner automotive forces of the country.

This new division of the American Automobile Association is to be known as the Commercial Vehicle Department.

This important move was recently authorized by the board of directors of the American Automobile Association. With the formation of these divisions, the appointment of Charles P. Clark, who has an extensive acquaintance with every phase of the automobile industry, as manager of the new department was announced. The plans for the new department do not contemplate any interference with the integrity of existing state or local truck and bus organizations.

Among the constructive steps on the program of the Commercial Vehicle Department of the A. A. A. are the following:

1. Traffic survey to determine the best methods of routing commercial travel away from congested areas.

2. Research in operating costs under all conditions and in all parts of the country.

3. Legislative activity which will prevent undue burdens and improper restrictive legislation being placed upon motor vehicles. Complete information service as to the development of municipal, county, state and national legislative movements having to do with motor vehicles taxation and operation.

4. Studies of the possibilities of terminal stations all over the country for the handling of freight and passengers.

5. A campaign for courtesy on the highways and the development of a helpful interest between the drivers of commercial vehicles and drivers of pleasure cars.

6. Organization of a field service to aid local truck and bus organizations in research and in the extension of their membership by securing the adherence of large fleets of trucks.

7. Co-operation with state authorities in programs for snow removal.

Educational service where the science of motor transportation will be studied and developed on basis of experience.

Second Annual Maintenance Show to be Held From May 20 to 23

This Event Will be Conducted Together With the National Automotive Service Convention

THE second annual Automotive Maintenance Equipment Show and the National Automotive Service and Convention will be held on May 20 to 23, inclusive, in the General Motors Building, Detroit. Both events are being conducted by the National Automobile Chamber of Commerce with the co-operation of the Motor & Accessory Manufacturers' Assn., the National Automobile Dealers' Assn., the Society of Automotive Engineers, the Automotive Equipment Assn., the Automotive Electric Assn., and the Automotive Manufacturers' Assn.

Service at a profit has been selected as the keynote of the convention program. Sessions will be held from 2 to 5 p. m. on the first three days of the show and each session will be opened by a man of national prominence. Subsequently papers will be presented by well-known trade figures on various methods of making the service station profitable which they have used successfully. The program is being arranged particularly for the dealer and the topics discussed will all be of current interest to him.

The show is being managed by Sam Miles of the N. A. C. C. and applications will be mailed to prospective exhibitors within the next few days. In allotting space, preference will be given to last year's exhibitors. On the first three days the show will be open from 10 a. m. to 10 p. m. except during convention sessions and on Saturday from 10 to 6 continuously, no convention session being scheduled for that day.

In order to insure a large dealer attendance, both the show and the convention are being promoted extensively not only by the N. A. C. C. and the organizations co-operating with it, but also by the factory service departments.

Wood Hydraulic Anticipates Good Year

Quotas running well in advance of the total business in 1924 are reported by Wood Hydraulic Hoist & Body Co., Detroit, Mich., to be signed for the coming year. The company has just concluded a sales meeting at its factory which was attended by all branch managers and leading distributors.

The business of the meeting was given over to discussing the general situation in all parts of the United States, and the market thus afforded for the sale of special truck bodies and equipment. Apparently there was no question in the minds of the conferees as to outlook for truck business, and consequently, truck equipment business throughout the present year.

Frank H. Dewey, assistant general manager, presiding at the meeting, disclosed that the company had come through 1924 with a very satisfactory volume of trade, so much so that the capacity of the factory was required most of the year to meet the demand. With every prospect that 1925 would witness an upturn in the general business of the country, the company was planning to meet an increased demand.

Mr. Dewey further explained that the distributing organization had been extensively increased in 1924, to the extent that it is now able to give service on all Wood equipment in practically every district in the country. Further increases in dealerships this year will make the national distribution and servicing still more complete. Among the changes of the year were the establishment of direct factory branches in New York, Los Angeles and San Francisco.

The sessions of the convention were held in the private offices of Garfield A. Wood, president of the company, with daily luncheons served in the first floor of its office building, which has been turned into a permanent exhibition hall for the company products. Officers of the company who spoke in addition to Mr. Dewey, were Logan Wood, vice-president and general manager, and C. D. MacPherson, general sales manager.

HE may be a "barnacle" on the business, but he is not *your* competitor if he is headed for bankruptcy.

(*See pages 9 and 10*)

New Head for Motor Truck Industries, Inc., to be Elected

The directors of the Motor Truck Industries, Inc., met in Buffalo at the Hotel Statler, February 18th, for their regular monthly meeting. The afternoon was spent visiting the plants of the Stewart Motor Corp. and the Atterbury Motor Truck Company.

The March meeting will be held on Wednesday, the 18th, in Detroit on the invitation of the Continental Motors Corp., and a very large attendance is expected.

B. A. Gramm, of Gramm & Kincaid Motors, Inc., Lima, is secretary and treasurer and reports the Association in very good standing.

At the Detroit meeting in March another president will be elected to take the place of O. W. Hayes of the Republic Truck Co. who felt that in view of pressure for time he would not be able to devote 100 per cent attention to association activities. Mr. Hayes, however, is very enthusiastic about the association and its work and will give all the assistance he can to further its principles.

Insurance and Accidents Discussed at Philadelphia Meeting

State Bureaus Should Investigate Cause of Accidents and Then Consider Remedy

CONFUSION in traffic regulations and improper laying out of streets to provide for parking zones and congested conditions was largely blamed for the heavy toll of automobile accidents in large cities by G. I. Sweitzer, assistant superintendent of Liability and Compensation Claims Department of the Indemnity Insurance Co. of North America, in an address on "The Penalty of Reckless Driving," before the monthly meeting of the Motor Truck Association of Philadelphia.

Mr. Sweitzer said that statistics showed that about one-third of the accidents were due to recklessness of the driver. Employers of drivers should, therefore, instill in them the importance of greater care, even to the point of impresing upon them that they should have no accidents whatever, whether they are at fault or not. The motto of every driver should be "Lose a Minute and Save a Life."

The subject, "Is the Careless Automobile Driver a Criminal?" was discussed by G. R. Dette, secretary manager of the Insurance Federation of Pennsylvania.

The Supreme Court of Pennsylvania, and of many other states as well as of the United States, have decided that the highways are for the pedestrian who must be given first consideration. All can render humanity a great service by making the highways safer. Members of the industry should start things right now to correct these errors rather than to wait for the proposal of a law to prevent them. There should be a state bureau to investigate the cause of the accidents, analyze them, and then consider the remedy.

The meeting was presided over by Buell G. Miller, president, who suggested the appointment of an insurance committee to study the subject. He was heartily endorsed by members of the association on some pointed remarks he made regarding the poor and ruinous price cutting methods of some motor truck owners renting for hire stating that they were injuring the entire business. Mr. Miller suggested a cost accounting system prepared as a guide to all motor truck owners hiring out vehicles for contract work.

Independent taxi drivers in Columbus are up in arms against a police order which compels all taxis to have the name of the driver lettered on the doors of the car, which can easily be seen at a distance of 200 feet. This ruling is contained in an ordinance which was adopted some time ago, but the police department has just taken up the enforcement of that provision. Taxi drivers say that a substantial part of their incomes comes from funeral work, much of which would not be secured if the provisions of the ordinance are carried out.

Bassick Acquires Large Interest in the Commerce Motor Truck Co.

Program of Expansion and Development Planned. Capital Stock Increased to $500,000

ACQUISITION of a substantial interest in the Commerce Motor Truck Co. by W. R. Bassick, E. W. Bassick and E. S. Evans of the former Bassick-Alemite Co., and their election as officers and directors of the company was recently announced under the plans for expansion and development of the company. The capital stock authorization has been increased from $200,000 to $500,000 and it is planned to make Commerce a leading contender in the truck and bus field.

The officers and directors of the company as now constituted are: W. R. Bassick, president; E. H. Graham, vice-president; E. S. Evans, treasurer; directors, E. E. Parker, E. W. Bassick, W. R. Bassick, E. H. Graham and E. S. Evans. E. W. Bassick was president and W. R. Bassick and E. S. Evans vice-presidents of the former Bassick-Alemite Co., which was sold recently to the Stewart-Warner Corp. Mr. Evans is also president of the E. S. Evans Co., manufacturers of automobile loading equipment. Mr. Parker was former president of the Commerce Co. and Mr. Graham a former executive.

In a statement by W. R. Bassick, the new president, he said that the first steps to be taken will be an increase in the manufacturing program to provide prompt deliveries on all orders and the development of improved servicing for vehicles now in use. The increase in capital will provide for a merchandising program which will result in a steady and consistent growth in business. Dealer development plans are already under way through which the company will co-operate and assist its representatives in a retail way.

The factory organization will remain intact with C. L. Granger as general manager. Manufacturing plans call for increased schedules on all present bus and truck models.

R. W. Judson of Continental Predicts Record Business for 1925

"In commenting upon the business situation I believe that a man can speak more intelligently about the outlook if he bases his conclusions on facts of his own business with which he is entirely familiar," says R. W. Judson, president of Continental Motors Corporation, Detroit.

"From that standpoint, or in other words, taking the business of Continental Motors as a basis for my deduction, I am firmly convinced that automotive manufacturers will do a record business during 1925.

"During the last week we have closed contracts with three passenger car manufacturers and one bus manufacturer to furnish Red Seal Continental Motors for their entire production during the current year. These four contracts call for a total of more than one hundred thousand motors, and represent entirely new business for us."

Splitdorf-Bethlehem Electrical Company Established

Bringing to a conclusion one of the largest transactions of the year in the automotive and radio field, the Bethlehem Spark Plug Co., Inc., Bethlehem, Pa., made definite announcement at its offices that it had acquired control of approximately 80 per cent of the $4,500,000 outstanding stock of the Splitdorf Electrical Co. of Newark.

A new company, known as the Bethlehem Spark Plug Co. of New Jersey, has been organized, this name to be changed later to that of the Splitdorf Bethlehem Electrical Co. This organization will act as a holding company for both the Bethlehem Spark Plug Co. and the Splitdorf Electrical Co.

E. H. Schwab, now president of the Bethlehem Spark Plug Co., will head the new company. In addition to him, its Board of Directors will include Charles M. Schwab, of the Bethlehem Steel Corp.; M. H. Bartlett, now president of the Splitdorf Electrical Co.; C. S. Splitdorf, of the Splitdorf Company; C. Rorabeck, vice-president of the Torrington Co.; H. P. Engles, of Theodore Shultz & Co., of New York; H. Alvord and W. N. Davidson, general sales manager of the Bethlehem Spark Plug Co.

INTERSTATE EDICT OF SUPREME COURT

Close study of the two bus decisions recently handed down by the Supreme Court by legal authorities this week here reveals that the dominant theme in both of them is that no state can bar interstate bus companies from operating within its boundaries merely because they would compete with existing bus lines which are rendering satisfactory service. See page 28 for further details.

Changing Annoyance Into Profit

An article under the above title appeared on page 17, in the February issue of the Commercial Car Journal, for which credit was inadvertently omitted. Those who read this article, which contained illuminating selling slants not generally given serious consideration, will be interested in knowing that the article was written by Ford Darling, salesmanager, Field Body Corp., Owosso, Mich.

A. A. A. Warns Bus Interests of Drastic Tax and Restrictive Measures

Trend of Regulation and Taxes Will Virtually Wipe the Bus Out of Existence, Says A. A. A.

A WARNING there is grave danger that the motor bus on which millions of people in the cities and in the rural communities are now wholly dependent for transportation may be seriously crippled and that many bus lines may be forced to suspend operations as a result of drastic tax and restrictive measures urged in the state legislatures now in session is sounded by the Commercial Vehicle Department of the American Automobile Association.

In a statement analyzing scores of measures designed to regulate and tax the motor bus, it is brought out that many of these measures are of so drastic a character that the bus lines would be virtually wiped out of existence and the development of this new agency of mass transportation brought to a standstill. The most destructive of these bills have been introduced in states where motor bus transportation has not yet reached the stage that assures it popular support against unfair and restrictive legislation.

Outlining the serious consequences from the standpoint of public transportation that would result from these restrictive proposals, Thomas P. Henry, president of the American Automobile Association, said:

"The measures for taxing and restricting motor bus transportation are primarily due to the failure on the part of many well meaning legislators to visualize clearly the fact that the era of motor bus transportation is here. To retard its development by discriminatory legislation is to restrict a public service that has had tremendous expansion in the last few years, because of the great need it filled.

"On the basis of conservative estimates it is safe to say that at the present time buses in the United States are giving transporation to more than two billion and a half passengers a year, which is equivalent to twenty-two bus rides for every man, woman and child in the country. To impose prohibitive taxes on the industry is in effect to impose them on the public that uses the bus and if the service survives it is only by passing on these taxes to the public. Hence the public interest is at stake in the flood of legislation pending.

"Bus operators almost without exception recognize that their operations should be regulated by some competent state body except in those cases where the state laws provide for very broad home rule for towns and municipalities. The bus operators are and have been willing to pay fair taxes for their franchises but they must have protection if they are to continue to give service."

Move Toward Uniform Marking of Highways

A very important step toward the uniform numbering and marking of highways of an interstate character was taken when Secretary of Agriculture Howard M. Gore appointed a board, composed of officials from the Bureau of Public Roads and the State Highway Departments to prepare a plan and secure its adoption by the various states.

Although there have been a number of safety council meetings and gatherings of various groups interested in highway safety and in highway convenience with a view of bettering conditions it has been found that there have been so many divergent views and conflicting ideas that the general public in traveling over the highways through the several states encounter considerable confusion because of the great variety of direction signs and danger signals.

The work of the new committee is to co-ordinate the work of the various states.

Commercial Licenses Receive a Boost in Ontario

Trade Commissioner Lynn W. Meekins, Ottawa, recently transmitted to the Automotive Division the licenses for motor trucks to be used for commercial purposes in the Province of Ontario during 1925 which have been increased as follows: Less than two tons pneumatic tires from $14 to $16; between two and three ton pneumatic tires from $19 to $24; three to four ton pneumatic tires is set at $36 and from four to five ton pneumatic tires at $45; less than two tons, solid tires, whole or in part, from $14 to $18; from two to three tons, solid tires, from $19 to $27; three to four ton solid tires is set at $40 and four to five ton solid tires at $50.

It is announced there will be no change in the license fee for passenger cars.

Sales of India Tire and Rubber Increases Over 50 Per Cent

The sales of the India Tire & Rubber Company, Okron O., in 1924, increased more than 54 per cent over the previous year, according to Paul C. Searles, secretary and treasurer of the company. The 1924 sales were $3,021,767.39. Reserve and surplus increased $326,882.90 after preferred dividends and 6¼ per cent was paid on common stock.

Searles says prospects for this year are unusually good. With the addition to the plant now nearing completion the company will be in position to manufacture between 1500 and 1800 tires a day, which production has been practically all contracted for the next twelve months.

Automotive Employment on the Upgrade

With the automotive industry increasing production, the employment situation is decidedly on the upgrade in this field, a survey of the nationwide reports on employment contained in the February issue of the Industrial Employment Bulletin of the U. S. Employment Service reveals. While there are still cases where a surplus of workers still exists, the reports show that they are by far in the minority.

Speaking generally of the situation in Michigan, the bulletin points out that several automobile plants are recalling furloughed workers due to the increased production in the automobile industry. The only distressing report in this state is from Highland Park in the Detroit industrial district where plants are reported working only part time affecting about 50,000 workers.

Does Ignition Need Attention or Education?

During 1924 the Chicago club's first aid department answered 25,646 calls, 10,605 of which were for ignition troubles, 3989 wrecks and 3738 for battery troubles. Miscellaneous troubles made up the rest of the list.

Campaign to Reduce Wastage Still on

An appeal to the manufacturers of the country included in its membership of the Chamber of Commerce of the United States to support the campaign for the elimination of waste in industry by means of simplification and standardization of products was recently issued by the Department of Manufacture of the Chamber of Commerce of the United States.

"Notwithstanding the very evident gains and economies which are certain to accrue from a reasonable application of simplified practice," says the Department of Manufacture, "it is surprising that numerous lines have as yet taken no very definite steps in this direction.

The department cites a long list of simplification projects successfully carried out. The department will also supply on request details concerning any line which has been simplified.

J. Howard Pile Joins United Motors Service, Inc.

J. Howard Pile, for the past seven years Technical Editor of Motor World, has been made Supervisor of the Harrison Radiator Service Division of the United Motors Service, Inc., New York Branch. Mr. Pile has been identified with the service end of the industry in New York for many years and in addition to his editorial work, has acted as consultant in service matters to a number of firms. He was one of the organizers of the Automotive Service Association of New York, was its first secretary and general manager and at present is the treasurer. His new work will be building up the radiator repair business of United Motors Service in the Metropolitan territory.

Public Resents Onerous Bus Provisions

Onerous provisions of a new ordinance, now before the city council of St. Louis, Missouri, is creating much unfavorable comment and it is generally believed that if not actually designed to put the bus lines out of business, are so drawn as to make that result practically certain if the measure is adopted.

The public concedes the problems that confront the trolley lines in these days of competition and wishes them properly solved, but feels that this is one thing while the honor and good faith of the city of St. Louis is another. The city has suffered for years from the lack of extension and distribution of transportation facilities. The bus lines came to the rescue and invested a large sum, providing transportation that has been imperatively needed and has been giving first class service in its field.

The public believes that the bus companies are entitled to a square deal and should not be burdened with exactions and restrictions that make it impossible to do business efficiently and with a reasonable return upon the actual investment. It is urged that the city council should act with due regard to the municipal obligation and the welfare of the public.

S. M. C. Opens New Branches

Central Motors Truck Co. has opened new branches at Jacksonville, Fla., and Dayton, Ohio, according to an announcement from Detroit. This is understood to be a move in connection with a general branch expansion. Price reductions ranging from 30 to 35 per cent on Delco and Remy armatures are effective as of March 1, according to an announcement by the General Motors Service Co., the official field service organization of the manufacturing companies. In making the reduction the United Service Co. notes that the price of armatures has always been the greatest single factor in causing the question among car owners as to electrical service bills.

Battery Guarantees

Should batteries be sold under a ninety day guarantee? Most of the more prominent manufacturers think so, and some of them have this guarantee in effect. The National Battery Manufacturers' Association is endeavoring to make the ninety day guarantee universal, and to this end has circularized 15,000 batterymen, all the principal battery manufacturers, the jobbers, makers of raw materials, and the associations such as the S. A. E., N. A. D. A., etc., and the N. A. C. C. About 99.9 per cent of these institutions and firms agree that the ninety day unconditional guarantee as to material workmanship is the most equitable form of guarantee, protecting the manufacturer as well as well as the public.

Personals

J. D. Anderson has been appointed vice-president in charge of production at all divisions of the Fisk Rubber Co. He was formerly vice-president and factory manager of the Fisk division at Chicopee Falls. He joined the Fisk organization in 1916.

A. C. Bader, of the Detroit Branch of the Federal Motor Truck Company, was elected president of the Star Club at the annual meeting in Detroit, succeeding John E. Peters, who held the office for a few years. The Star Club is an organization of premier salesmen of the Federal Company and includes representatives from every section of the United States. Only those who have attained a certain high mark are eligible to membership.

A. J. Banta, well known sales executive, has been appointed assistant to Otto E. Stoll, general manager of the General Motors Truck Co. He was previously general sales manager of the Rickenbacker Motor Co. His experience in the industry includes twenty years of factory and retail sales work.

R. G. Bradley will succeed W. P. Culver who resigned as sales manager of the American Autoparts Co., Detroit. Mr. Bradley has been sales engineer with this company for the past five years. He was formerly Western representative for the Perfection Spring Co.

Charles G. Calderwood has been appointed Minnesota representative for the General Tire & Rubber Co. Mr. Calderwood was formerly manager of the St. Paul, Minn., Union Bus Depot. Prior to his depot connection, he had twelve years' experience in the tire industry.

A. K. Chambers has been made personal field representative of the general sales manager of the Bosch Magneto Corp. with headquarters at Springfield, Mass. Mr. Chambers was formerly manager of the Chicago branch. He will be succeeded by O. H. Smith.

Louis E. Clarke, who has been with the Hoyt Metal Co., St. Louis, Mo., since 1911, has just been appointed by the company to take charge of its Detroit branch, 1626 Penobscot Bldg.

Lyman W. Close has resigned as chief engineer of the Bock Bearing Co., Toledo, Ohio, where he has served for the last seven years. Together with David R. Feemster, assistant chief engineer of the same company, he has formed a new company for the production of sheet metal stampings. The new company is known as the Lyda Machine Products Co., Toledo, Ohio.

John W. Davis, who resigned as director of the United States Rubber Co. when he was nominated Democratic candidate for president, again has been elected director and appointed general counsel of the company.

Roy L. deBrauwere has been elected sales manager of A. Schrader's Son, Inc., Brooklyn, N. Y. He succeeds John Hoerger, who has resigned to open up a Pacific Coast Schrader Branch in Los Angeles. Mr. deBrauwere is just beginning his tenth year with the Schrader Company. He is also well known in the tire industry.

H. B. Earle, formerly connected with the Sales Department of the Champion Spark Plug Co. and later with the A. C. Spark Plug Co., has been appointed general sales manager for the Judd & Leland Mfg. Co., Clifton Springs, N. Y.

William F. Earls, for the past four years assistant advertising manager of the United States Rubber Co., has been placed in charge of the advertising in the general division of the company. He succeeds Ralph Starr Butler, who resigned.

P. L. Emerson has been appointed vice-president in charge of sales of the Yellow Cab Mfg. Corp. by John Hertz, president of this company. Mr. Emerson will supervise all divisions, including taxi cabs, trucks and Hertz Drivurself system. This appointment was in line with a large program of expansion in the commercial transportation department of this company. Several other important executive positions have been filled among which are the following: Mr. Emerson appointed H. T. Kessler divisional sales manager in charge of New England and Pacific Coast territory. Sales promotion will be in the hands of Sam J. Turnes. The truck division will continue under the management of V. G. Phillips. C. S. McElwain will have charge of merchandising the business building department for operators of the Hertz Drivurself System.

Harold H. Emmons, formerly president of the Detroit Board of Commerce, is the new head of the Great Lakes Refining Co. F. F. Beall, formerly vice-president of the Gray Motor Co. and the Packard Motor Car Co., is secretary and treasurer. H. W. Alden, chairman of the board of the Timken-Detroit Axle Co. and former president of the Automotive Society of Engineers, is one of the directors.

J. C. Haggart, Jr., chief engineer of the Republic Motor Truck Company, Inc., Alma, Michigan, has been appointed assistant to the president. His new duties will be in addition to those of chief engineer, a position which he has filled for the past three years.

C. B. Harvey has taken over the business formerly run under the Lapeer Trailer Corp. in Philadelphia as a factory branch. The business will continue under the name of C. B. Harvey, eastern distributor.

H. J. Hoyt, after nineteen years with the Morgan & Wright plant of the United States Rubber Company, Detroit, has resigned as chief engineer.

H. G. Jackson was elected president and general manager of the Wire Wheel Corp. of America. He succeeds G. M. Williams, who became president of the Nordyke & Marmon Co. some months ago.

H. W. Jackson, formerly with the General Automotive Corp., has been made manager of the Unique Spark Plug Cleaner Co., Chicago, manufacturers of the Instant spark plug cleaner.

Henry Knippenberg, formerly of the Homer McKee Co., has been announced as manager of sales promotion of the Prest-O-Lite Co., Inc., Indianapolis.

Dr. J. E. Lilienfeld, professor of physics at Leipzig University, has been appointed chief physicist of the American Bosch Magneto Corp.

Frank N. McNutt has joined the A. C. Spark Plug Co., Flint, Mich., where he will act as contact man between the management and engineering department. Mr. McNutt was formerly chief engineer of the Haynes Automobile Co. He was a member of this organization for twenty-five years.

Jacob Pfeiffer, president of the Miller Rubber Company, was elected a member of the board of directors of the reorganized Ohio Chamber of Commerce in Columbus.

W. M. Reynolds has joined the Pedrick Heat Shaped Piston Ring organization as district manager of the New England and New York territories. Mr. Reynolds was formerly associated with the Burgess-Norton Co., Geneva, Ill.

Paul L. Riemann has been made vice-president and director of sales for Norwesco, Marietta, Ohio.

Ben Smith, district manager of the Fisk Rubber Co., with headquarters in New York, recently tendered his resignation, which was reluctantly accepted. Mr. Smith was widely known in Metropolitan circles through his various activities. He will join a New York brokerage concern.

Arthur W. Wiese has been appointed manager of the Philadelphia office of the Strom Ball Bearing Co., with headquarters at 309 Lincoln Bldg.

C. E. Wilson, until lately general manager of the Remy Electric Co., is now president and general manager of the company and president of the Klaxon Co. The appointment was made by president A. P. Sloan, Jr., of General Motors Corp. Mr. Wilson has been a member of the Remy organization for the past six years, having served as chief engineer, factory manager and assistant general manager. He succeeds I. J. Reuter who has been transferred to the Olds Motor Works as general manager.

Ernest Wooler has been appointed automotive engineer of the Timken Roller Bearing Company. Mr. Wooler was formerly chief engineer of the Cleveland Automobile Co. and the original designer of the Cleveland car. After graduating from the Technical School of Manchester, England, and serving a seven years apprenticeship with Rolls-Royce, Mr. Wooler acquired an all-around practical engineering, manufacturing, testing, etc., experience. Later he was connected with Crossley and Stracker-Squire, Ltd., England. In 1913 he was a member of the English delegation to study American methods. In America he became chief designer for the Continental Motors Co. and assistant chief engineer of the Chandler Motor Car Co., and in 1919 chief engineer of the Cleveland Company.

George W. Yeoman has resigned as vice-president of the Continental Motors Corp. Mr. Yeoman has been connected with Continental Motors for the past sixteen years, joining the company as manager of parts sales in 1909 and rising through many executive positions to the vice presidency. In accepting the resignation the Continental Board of Directors passed resolutions of regret and Mr. Yeoman was given an engraved watch as a token of esteem.

A. A. Gloetzner Heads Covert Gear

As a result of negotiations which have been for some time in progress, the entire plants and equipment of the Covert Gear Co., Lockport, N. Y., have been purchased by Alwin A. Gloetzner and a group of associates.

The company, one of the largest reputable manufacturers of gears and transmissions, supplies many of the leading builders of motor cars and trucks with this important unit.

Mr. Gloetzner, who has been for years the moving spirit and directing genius of the company, states that his plans for reorganization of the company are amply financed and that the company will within a very short time announce further steps in resuming its position as an independent property, serving as a general source of supply to the whole automotive industry.

Commercial Car Specifications—Corrected Monthly

The Specifications, Chassis Prices, Etc., Are Corrected Each Month From Data Supplied Direct by the Makers. Gasoline Tractor-Trucks Will be Found at the End of Gasoline Commercial Cars

Those Chassis Which Are Sold and Recommended for Passenger Transportation Are Designated in the Following Table by Reference Sign (§) in Front of the Name

For Specially Designed Motor Bus Chassis See Pages 42 and 43. See Table for Replacement Data. Truck Frame Dimensions Are Included in Same Table

(Where prices are not given it is because we have been unable to get them from authoritative sources)

For full name and address of manufacturer and information regarding complete line see page 51

Trade Name and Model	General: Chassis Price	General: Standard Wheelbase (inches)	General: Tire Size §§ Front (inches)	General: Tire Size §§ Rear (inches)	Engine: Make and Model	Engine: Bore and Stroke (inches)	Engine: N.A.C.C. Rated H.P.	Engine: Valve Arrangement	Engine: Oiling System	Engine: Governor (Make)	Engine: Radiator (Make)	Engine: Fuel System: Carburetor (Make)	Engine: Fuel System: Fuel Feed	Electrical System: Ignition System (Make)	Electrical System: Generator and Starter (Make)	Clutch: Make	Clutch: Type	Gearset: Make and Model	Gearset: Location	Gearset: No. of Forward Speeds	Universals (Make)	Rear Axle: Make and Model	Rear Axle: Final Drive	Rear Axle: Type	Gear Ratios: Total Reduction in High	Gear Ratios: Total Reduction in Low	Brakes, Location	Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.) (stripped)
1000 Pounds																																	
Chevrolet Sup.Com.Ch	410	103	30x3½*	30x3½*	Own	3 H x4	21.7	H	PS	Non	Har	Zen	G	Rem	Rem	Own	P	Own Sup	U	3	Own	Own Sup	S	½	3.81	12.7	A	Own Sup	S.S	Own	Hay	Jax	1500
Overland..91	395	100	30x3½*	30x3½*	Own 91	3½x4	19.6	L	PC	Non	Own	Til	G	A-L	A-L	B&B	P	Own 91	U	3	Own	Own 91	B	½	4.50	17.6	A	Own 91	Own	Own	Hay	Hay	1550
1500 Pounds																																	
Dodge Brothers	705	116	32x4*	32x4*	Own	3⅞x4½	24.0	L	SP	Non	McC	Ste	V	N-E	N-E	Own	D	Own	U	3	Own	Own	S	½	4.54	18.9	A	Own	Own	Own	Kel	Kel	1992
Rainier...R-31	1970	125	35x5*	35x5*	Con N	3¾x5	22.5	L	PS	Non	Har	Zen	V	Eis	Non	B-L	D	B-L 30	U	3	Har	Tim 6258	W	½	6.75	22.5	A	Tim 1250	Per	Lav	Jon	Fir	2500
§Ruggles 15	....	122	32x4½*	32x4½*	H-S 30	3½x5	19.6	L	PS	Non	Per	Zen	G	Bos	Bos	M-E	P	Ful J	U	3	Spi	Col 3000	B	¾	5.81	19.7	A	Col 3000	Det	Jac	Nor	Fir	2300
White 15	2150	133½	34x5*	34x5*	Own GK	3¾x5½	22.5	L	SP	Non	Own	Zen	G	.....	.....	Own	D	Own 15	A	5	Spi	Own 15	B	½	5.36	18.6	A	Own 15	.....	Own	Woo	Fir	3225
Yellow Cab Mod T3	1295	109	29x4½*	29x4½*	Con V-7	3¾x5	22.5	L	PS	Non	Lon	Zen	G	Bos	N-E	B-L	D	B-L 30Y	U	3	Spi	Tim 5330	B	½	4.90	16.3	B	Tim 1341 Dey	Mar	Gen	Mot	Fir	2500
1 Ton																																	
Acme Flyer	....	130	30x5*	30x5*	Con S4	4¼x4½	28.9	L	FP	Non	Roc	Zen	V	A-L	A-L	B-L	D	B-L31	U	3	Blo	Col 52000	S	F	5.10	24.4	A	Col 5000S	Det	Ros	Smi	Fir	3000
Autocar F	....	97	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	Non	Own	P	Own F	A	3	Spi	Own F	R	F	8 30	33.2	A	Own F	Del	Ros	Hoo	.....	3800
Autocar G	....	120	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	Non	Own	P	Own F	A	3	Spi	Own F	R	F	8.30	33.2	A	Own F	Del	Ros	Hoo	.....	3900
Bessemer G	....	124	35x5*	35x5*	Con N	3¾x5	19.6	L	PS	Non	Stn	Str	G	Bos	Bos	Ful	D	Ful TU¾	U	3	Blo	Tor Bevel	B	D	.....	.....	A	She 350	Per	Ros	Sch	Fir	3000
§Bethlehem KN	1595	125	33x5*	33x5*	Own KN	3½x5	19.6	L	FP	Non	Bus	Zen	V	Bos	G&D	B&B	P	D-G	U	3	Spi	Eat 1000	B	½	6.86	21.8	...	Eat 750	Mat	Lav	Van	Fir	2650
Betz J-3	1850	140	34x5*	34x5*	Own J-3	3¾x5½	22.3	L	...	Non	Chi	Zen	G	Bos	Bos	B-L	D	B-L 30	U	3	Pet	Tim 6352	W	½	.....	.....	A	Tim 1250	Mar	Ros	...	Fir	3150
Biederman	....	138	34x4	34x5	Con 8R	3⅜x4½	27.3	L	PC	Han	Own	Zen	G	Del	Del	B-L	D	B-L 31	U	3	Spi	Cla	B	½	5.5	27.	A	Shu	Mat	Ros	Cla	Fir	3200
Casco A	1700	130	34x5*	34x5*	Bud WTU	3¾x5½	23.4	L	PC	Non	G&O	Zen	V	Bos	Bos	Ful	....	Ful SUI	U	3	Spi	Col 52000	S	½	5.85	23.4	A	Col 5000	Sta	Woh	Arc	Fir	3200
§Chevrolet Sup	550	120	30x3½	34x4½*	Own Sup	3 H x4	21.7	H	PS	Non	Har	Zen	G	Rem	Rem	Own	P	Own Sup	U	3	Own	Own Sup	S	½	6.33	24.1	A	Own Sup	S.S	Own	Hay	Jax	1900
Commerce 11	....	127	34x5	34x5	Con N	3¾x5	22.5	L	SP	Non	Lon	Zen	V	Bos	Bos	Ful	D	Ful SU2	U	3	U-M	Sal 1481	B	¾	5.85	23.4	A	Sal 1415	Amc	Jac	Smi	Fir	2930
Concord E	2500	135	34x5*	36x6*	Bud GBU	4x5¼	25.6	L	PC	Non	Own	Zen	V	Eis	Wes	B-L	D	B-L 30	U	3	Spi	Tim 6352	W	½	6.20	24.8	A	Tim 1452	....	Ros	Arc	Fir	3500
Corbitt E	1700	130	34x3½‡	34x4‡	Con N	3¾x5	22.5	L	PS	Non	McC	Str	V	Eis	Bij‡	B-L	D	B-L 31	U	3	Spi	She W1501	W	½	7.80	25.9	A	She 33FA	She	Ros	Bim	.....	3730
§Diamond T75	....	130	33x5*	33x5*	Her OX	4 x5	25.6	L	PC	Non	G&O	Zen	G	Apo	A-L†	Cov	D	Cov JUC	U	3	Spi	Col 52000	B	¾	5.12	18.5	A	Col 5000	Mat	Gen	Mot	Fir	2825
Dorris K-2	2490	Opt	33x5*	33x5*	Own	4 x5½	25.6	H	PC	Non	Mod	Str	V	Bos	Wes	Own	D	W-G	U	3	Spi	Tim 5512	B	½	4.23	15.6	A	Tim 1250	Row	Ros	Mun	.....	2000
Duplex G	....	132	33x5*	33x5*	Bud WTU	3¾x5½	22.5	L	PC	Non	Mod	Zen	V	Wes	Wes	B-L	D	B-L	U	3	Pet	Tim	B	½	5.50	22.0	A	Tim 1250	Pen	Ros	Mot	Fir	3300
Federal Knight	1095	124	32x4½	32x4½	Own	3⅝x4½	21.0	S	PC	Non	Own	Zen	G	Eis	A-L	B&B	P	Own	U	3	U-M	Tim 5310	B	½	6.11	22.3	A	Own	Mat	Gem	Mot	Fir	2400
§Ford T	365	124	30x3½*	30x5	Own T.T.	3¾x4	22.5	L	...	Non	Own	Own	G	Own	Own	Own	D	Own TT	U	2	Own	Own TT	W	½	Opt	19.9	B	Own TT	Own	Own	Own	Own	1572
Fulton A	1495	130	35x5*	35x5*	Bud WTU	3¾x5½	22.5	L	PC	Non	Liv	Zen	G	Sim	Dyn	Cov	D	Cov JUC	U	3	Spi	She W1002	W	½	6.10	.....	A	Col 5038	Row	Lav	Hoo	Fir	3600
§Garford 15	....	132	34x5*	34x5*	.....	3⅝x5½	21.0	L	PC	Non	.....	.....	G	.....	.....	.....	P	Own 15	U	3	.....	.....	W	½	6.50	.....	A	Own 15	.....	.....	.....	.....	3500
§Gary WLD	1590	132	35x5	35x5	Bud WTU	3¾x5½	22.5	L	PC	.....	Chi	Str	V	Eis	Rem	Ful	D	Ful TU¾	U	3	Blo	Tim 5511	W	½	5.50	24.7	A	Tim 1250	Det	Ros	Pru	Gdy	3200
§GMC K-16	....	132	34x5*	34x5*	Own K-16	3½x5½	19.6	L	FP	Own	McC	Mar	G	Sim	Rem	Own	D	Own K16	U	3	U-M	Own K-16	B	¾	6.00	21.9	A	Own K-16	.....	Own	Kel	.....	3435
Gotfredson 20 B	....	131	33x5*	33x5*	Bud WTU	3¾x5½	22.5	L	PC	Non	McC	Zen	V	Rem	Rem	B&B	P	B-L 20	U	3	Spi	Cla-B307	B	½	5.00	15.0	B	Sal 1546-E	Det	Gem	Van	Fir	3300
§Graham BB	1175	130	33x5	33x5*	Dod	3⅞x4½	24.0	L	PS	Non	McC	Ste	V	N-E	N-E	Dod	D	Dod	U	3	U-P	Own	S	½	5.10	21.2	A	Dod	Det	Dod	StM	Fir	2630
Gramm-Bern.10-Sp	....	129	33x5*	33x5*	Lyc CT	3¾x5	22.5	L	PC	Non	Own	Zen	G	Con	A-L	Mun	D	Mun T2311B	U	3	Own	Sal 1483	B	¾	5.75	23.0	B	Sal	Per	Ros	Van	Fir	2370
Grass Premier 40	1350	130	32x4½*	33x5	Lyc CT	3¾x5	22.6	L	PC	Non	Chi	Str	V	Bos	Bos	B-L	D	B-L	U	3	Spi	Cla B366	S	½	5.1	21.2	B	Sal	Per	Ros	Van	Fir	2370
Independent (Iowa)J	1450	135	34x5*	34x5*	Bud WTU	3¾x5½	22.5	L	PC	Non	Chi	Zen	V	Bos	Bos	Ful	D	Ful	U	3	Blo	Sal	B	...	5.73	.....	A	Shu	Tut	Lav	StM	Fir	3480
Indiana 11	....	129°	34x5*	34x5*	Her OX	4 x5	25.6	L	PC	Non	McC	Str	G	A-L	A-L	B&B	D	Mun T-23	U	3	Blo	Cla 307	S	½	5.66	22.6	A	Sal D	She	Ros	Bim	Fir	3300
Internt'l "8"	....	124	32x4½*	32x4½*	Lyc-Spec	3½x5½	19.6	L	PC	Non	Lon	Ens	G	Con	A-L	Mun	D	Mun	U	3	Sne	Eat	I	D	5.38	21 5	A	Tor 75	Sta	CAS	Opt	....	2750
Kenworth OS	2150	131	30x5	30x5	Bud WTU	3¾x5½	22.5	L	PC	Non	Own	Str	V	Bos	Non	B-L	P	B-L 31	U	3	Spi	She W 1002	W	½	6.00	28.8	A	She 33FA500	Lah	Ros	Smi	Fir	4100
King-Zeitler	2050	134°	34x4‡	34x5‡	Con J4	3¾x5	22.5	L	FP	Non	Chi	Str	G	Eis	Bos‡	B-L	D	B-L 31	U	3	Pic	Tim 6258	W	½	6.75	32.4	A	Tim 1460	Mar	Gem	Bim	Fir	3750
Kissel	1585	140	34x5*	34x5*	Own	3½x5½	24.1	L	SP	Non	McC	Str	V	Rem	Rem	W-G	D	W-G T38L	U	3	Spi	Tim 6258	W	½	6.2	22.8	A	Tim 1452	Mat	Jac	Std	Sch	3780
Luedinghaus	....	130	34x4½*	34x4½*	Wau X	3½x4½	19.6	L	PC	Non	Own	Zen	G	Spl	Dyn	B&B	P	D-G D-Y	U	3	...	Wis 800G	W	½	.....	.....	A	Col 5000	..	Lav	.....	.....	2850
§Menominee	....	132	35x5*	35x5*	Wis SU	4x5	25.6	H	PC	Non	Per	Zen	G	Eis	Bos	B&B	P	Det KY400	U	3	Spi	Col	S	½	4.58	18.3	A	Col	Per	Lav	Std	Fir	2925
Moreland R-R	1875	130	34x5*	34x5*	Her OBX	4x5	25.6	L	PC	Non	Own	Zen	G	A-L	A-L	B-L	D	B-L 30	U	3	Pet	Tim 5512	B	½	5 37	22 0	A	Tim 1250	U-S	Ros	.....	Fir	3335
Moreland RC	2280	180	32x6*	32x6*	Her OBX	4 x5	25.6	L	PC	Non	Own	Zen	G	A-L	A-L	B-L	D	B-L 30	U	3	Pet	Tim 5512	R	½	5.37	22 0	A	Tim 1250	U-S	Ros	Own	Gdy	3850
§Nash 2018	1595	130	34x4‡	34x5‡	Own 4	3¾x5¼	22.5	L	F	Sim	Lon	Str	G	Eis	A-L	B&B	P	D-G C	U	3	Own	Cla 1-D	I	D	6.80	21.8	D	Own 2018	Har	Lav	A-W	.....	3400
Nelson LeMoon GP-1	....	151	34x5*	34x5*	Con S4	4¼x4½	28.9	L	FP	Non	Chi	Str	G	Bos	Bos	B-L	D	B-L 30	U	3	Spi	Cla B307	R	½	5.66	.	A	Tim 1250	Tut	Ros	StM	Fir	2700
Noble A-76	1875	130	34x5*	34x5*	Bud WTU	3¾x5½	22.5	L	PC	Non	Chi	Zen	V	Spl	Bos	Ful	D	Ful LTU4	U	3	Blo	Cla B-360	B	½	6.28	25.1	B	She 33FA	Tut	Ros	Bim	Fir	3400
O. K. O	1575	131	33x5*	33x5*	Bud WTU	3¾x5½	22.5	L	PC	Non	Own	Zen	V	Eis	Dyn	Ful	D	Ful LTU	U	3	Har	Tim 6250	W	½	6.75	.....	A	Tim 1250	Tut	Ros	Mot	Fir	3250
Ogden A2	....	125	34x5*	34x5*	Con N	3¾x5	22.5	L	PS	Non	Chi	Zen	V	Spl	Bos‡	B-L	D	B-L 30	U	3	Pic	Tim 6258	W	½	5.60	18.6	A	Tim 1250	Tut	Ros	Bim	Gdy	3100
Penn	750	122	30x3½*	32x4½*	Own	3½x4	19.6	L	...	Non	Own	Til	G	A-L	A-L	B&B	P	Own	U	3	Own	She	W	½	5.50	20.0	A	Own	Own	Own	Sch	Fir	2175
Pioneer AA	1550	132	34x4½*	34x4½*	GBS	3¾x4½	22.5	L	PS	Non	Own	Zen	V	Bos	A-L	.....	D	D-G	U	3	The	.....	W	¾	6.10	25.1	A	.....	G-C	Wol	Bim	Fir	2500
Rainier R-29	2150	133	35x5*	35x5*	Con N	3¾x5	22.5	L	PS	Mon	Har	Zen	V	Eis	Bos‡	B-L	D	B-L 30	U	3	Spi	Tim 6258	W	½	6.75	22.5	A	Tim 1250	Per	Lav	Jon	.....	2700
Sandow GA	....	120	34x4*	34x5*	Bud WTU	3¾x5	22.5	L	PS	Non	Chi	Str	G	Eis	Non	Ful	D	Ful TU¾	U	3	Spi	Tim 1501W	W	...	7.00	23.4	A	She FA-500	.....	Ros	Opt	Fir	3000
Sanford W-612	....	151	33x5*	33x5*	Con8-R-6	3⅝x4½	27 3	L	PC	Non	R-T	Str	G	Con	Dyn	Ful	P	Ful	U	3	Spi	Sal E	B	¾	5.75	27.0	A	Sal E	She	Ros	StM	Fir	2960
Schacht	....	132	30x5*	30x5*	Wis SU	4 x5	25.6	H	PC	Non	Own	Zen	V	RBo	Non	Ful	D	Ful GU-7	U	4	Blo	Wis 60D	R	½	6.00	28.8	A	Shu 510	She	Ros	.....	.....	3750

For full name and address of manufacturer and information regarding complete line see page 51

Trade Name and Model	General: Chassis Price	General: Standard Wheelbase (inches)	General: Tire Size §§ Front (inches)	General: Tire Size §§ Rear (inches)	Engine: Make and Model	Engine: Bore and Stroke (inches)	Engine: N.A.C.C. Rated H.P.	Engine: Valve Arrangement	Engine: Oiling System	Engine: Governor (Make)	Engine: Radiator (Make)	Engine: Fuel System Carburetor (Make)	Engine: Fuel System Fuel Feed	Electrical System: Ignition System (Make)	Electrical System: Generator and Starter (Make)	Clutch: Make	Clutch: Type	Gearset: Make and Model	Gearset: Location	Gearset: No. of Forward Speeds	Universals (Make)	Rear Axle: Make and Model	Rear Axle: Final Drive	Rear Axle: Type	Gear Ratios: Total Reduction in High	Gear Ratios: Total Reduction in Low	Brakes, Location	Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.) (stripped)
1 Ton—con'd																																	
Service 25F	....	132	30x5*	30x5*	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Own	Zen	V	Rem	Rem	B&B	P	B-L 30	U	3	M-E	Eat 1500	B	½	5.62	23.0	A	Shu 310	She	Ros	Smi	Fir	3675
Sterling DW-8	2450	142	32x6	32x6	Own V	4 x5	25.6	L	PC	....	Own	Zen	V	Eis	....	B-L	D	B-L 31	U	3	Spi	Tim 6258	W	½	5.8	27.8	..	Tim 1250	Mat	Ros	....	....	4200
Stewart 16	1195	130	34x4½*	34x4½*	Lyc CT	3¾x5	22.5	L	FP	Non	Own	Zen	G	Rem	Rem‡	Ful	D	Ful SU-1	U	3	Spi	Cla AW	B	¾	5.10	24.0	A	Col3008	Det	Gem	Ind	Fir	2700
§Transport 15	....	128	32x4½*	32x4½*	Con N	3¾x5	22.5	L	PS	Non	Mod	Zen	V	Rem	Rem	Ful	D	Ful SU-1	U	3	Blo	Col 51000	B	¾	5.10	20.4	A	Col 5000	Det	Lav	Mot	Fir	2950
Triangle AA	1285	123	34x4½*	34x4½*	H-S 2700	3¼x5	16.9	L	PS	Non	Per	Str	G	N-E	N-E	Ful	D	Ful LTU4	U	3	U-P	Cla B-306	B	½	5.66	22.6	A	Eat 75	Det	Gem	Nor	Fir	2600
Wachusett S	2400	152	34x5	34x5	Con 8R	3⅜x4½	27.3	L	PC	Non	G&O	Zen	V	Bos	Bos	B-L	D	B-L 30	U	3	Har	Tim 5511	W	¾	5.50	22.5	..	Tim 1250	Sav	Ros	Smi	Fir	3300
Wilcox AA	1900	130	35x5‡	35x5‡	Bud WTU	3¾x5⅛	22.5	L	PC	Dup	....	Str	V	Bos	Wes‡	B-L	D	B-L 30	U	3	Spi	Rus 3600-B	W	½	7.70	25.8	A	Shu 350	She	Gem	....	....	3600
Yellow Cab T1	1450	130	33x5*	33x5*	Con V4	3¾x5	22.5	L	PS	Non	Lon	Zen	V	Bos	N-E	B-L	D	B-L 35	U	4	Spi	Tim 5516	B	½	5.37	17.3	B	Tim1341DGO	Mar	Gem	Mat	Fir	3130
Yellow Cab T-1-5	1550	150	33x5	33x5	Con V4	3¾x5	22.5	L	PS	Non	Lon	Zen	V		N-E	B-L	D	B-L 35	U	4	Spi	Tim 5516	B	½	5.37	17.3	B	Tim1341DGO	Mar	Gem	Mat	Fir	3210
1¼ Ton																																	
Autocar F	....	97	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	Non	Own	P	Own F	A	3	Spi	Own F	R	F	8.30	33.2	A	Own F	Del	Ros	Hoo	....	3800
Autocar G	....	120	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	....	Non	Own	P	Own F	A	3	Spi	Own F	R	F	8.30	33.2	A	Own F	Del	Ros	Hoo	....	3900
Biederman	....	154	34x5	34x6	Con 6M	3⅝x4½	27.3	L	PC	Han	Own	Zen	G	Del	Del	B-L	D	B-L 31	U	3	Spi	Tim	W	½	7.2	35.0	A	Shu	Mat	Ros	StM	Non	3600
Brockway E	....	135	33x5	33x5	Wis SU	4 x5	25.6	H	FP	Non	G&O	Zen	V	Eis	L-N	B-L	D	B-L 30	U	3	Spi	Col 52024	B	¾	5.12	....	A	Col	She	Gem	Hoo	Fir	3125
Brockway E7	....	153	32x6	32x6	Wis 6Y	3⅝x5	27.3	H	FP	Non	G&O	Zen	V	....	L-N	B-L	D	B-L 30	U	3	Spi	Col 53000	B	¾	5.12	....	A	Col	She	Gem	Van	Fir	4000
Clinton 20	2070	150	30x5*	30x5*	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Own	Zen	V	Bos	Bos	B-L	D	B-L 30	U	3	M-E	Tim 6258	W	½	6.25	25.0	A	Tim 1250	Per	Ros	StM	Fir	3450
Clydesdale 10A	....	154	34x5*	34x5*	Con JR	3¾x5	22.5	L	FP	Non	Own	Zen	V	Bos	Bos	B-L	D	B-L 31	U	3	Spi	Tim 6258	W	½	6.75	32.4	A	Std 3780F	Per	Ros	Smi	Fir	3250
Corbitt 25	1700	140	34x5	34x5	Con S4	4¼x4½	28.9	L	FP	Non	McC	Str	V	Bos	Bos	B-L	D	B-L 31	U	3	Spi	She W-1501	W	½	7.8	25.9	A	She EA500	She	Ros	Smi	Fir	4100
Diamond T 04	....	132	36x3½‡	36x4‡	Hin 700	3¾x5¼	22.5	L	PC	Non	G&O	Str	V	Eis	Non	Cov	D	Cov JUC	U	3	Spi	Own 800GD	W	½	6.20	26.0	A	Own 510	Mat	Gem	....	....	3850
Eagle 101	1875	134	34x5*	34x5*	Bud WTU	3¾x5⅛	22.5	L	PC	Opt	Own	Zen	G	Bos	Bos‡	Cov	D	Cov C	U	3	M-E	Tor 1000	i	D	6.60	24.0	A	Col 5000	Cha	Ros	Std	Fir	3800
Federal R-3	....	132	33x5*	33x5*	Con J-4	3¾x5	22.5	L	FP	Non	Own	Zen	V	Eis	Rem	B&B	P	Det	U	3	Pet	Tim 6250	W	½	5.60	18.7	A	Tim 1250	....	Gem	Dis	....	2950
Gramm-Bernstein 10	....	129	33x5*	33x5*	Lyc CT	3¾x5	22.5	L	PC	Non	Own	Zen	G	Bos	A-L	Mun	D	....	U	3	Own	Sal 1483	B	¾	5.75	23.0	B	Sal	Per	Ros	Day	Fir	2370
Guilder B	1650	132	33x5*	33x5*	Bud WTU	3¾x5⅛	22.5	L	..	....	G&O	Zen	G	Eis	Bos	B-L	....	B-L31	..	..	....	Cla 307	..	..	5.5	....	..	Shu 5405	Mer	Ros	Ind	Fir	3250
Guilder B-6	1750	132	33x5*	33x5*	Con 8R	3⅝x4½	27.3	..	..	....	G&O	Zen	G	Eis	Bos	B-L	....	B-L 31	..	..	....	Cla 307	..	..	5.5	....	..	Shu 5405	Mer	Ros	Ind	Fir	3250
Hahn B2	1800	136	34x5	34x5	Her OX	4 x5	25.6	L	FP	Non	Chi	Str	G	Con	Bos	B-L	D	....	U	3	Spi	Cla	B	..	6.00	....	A	Wis 10A	She	Ros	Opt	Opt	2900
§Larrabee-Deyo X-2	1810	138	34x5*	34x5*	Con 8R-6	3¾x4½	27.3	L	PC	Opt	Fed	Zen	G	Bos	Bos	B-L	D	B-L 31	U	3	Sne	Sal 148OE	B	¾	5.85	27.6	A	Sal D	She	Gem	Ind	Fir	3350
Maccar EX	....	132	34x5*	34x5*	Wis SU	4 x5	25.6	H	PC	Non	Own	Zen	V	Bos	Bos	B-L	D	B-L 31	U	3	Spi	Sal 1526E	B	¾	5.85	28.0	A	Sal 1525E	Row	Ros	Van	Gdy	3400
Master 11	....	132	33x5*	33x5*	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Chi	Zen	G	Wes	Wes	Ful	D	Ful LTU8	U	3	Spi	Tim 5511	W	½	5.50	22.0	A	Tim	Det	Ros	StM	Fir	3200
Menominee HT	....	130	34x3½‡	36x5‡	Wis SU	4 x5	25.6	H	PC	Mon	Own	Zen	V	Eis	Bos	Det	D	Cot AAU	U	3	Spi	Wis	W	½	7.75	28.5	A	Shu	Tut	Ros	Std	Fir	3525
Northway Rocket	....	138	32x4½	32x4½	Own R	3½x5	23.4	L	..	....	Own	She	..	Bos	Bos	....	....	....	..	..	....	....	..	..	....	....	..	....	....	Ros	....	....	2750
Patriot 17R	1575	129	35x5*	35x5*	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Mod	Zen	V	Bos	Bij	B&B	P	Cov MA	A	3	The	Tim 6258	W	½	6.25	22.6	A	Fli 50B	Mar	CAS	Bim	Jax	3200
§Reo F	1185	128	33x5*	33x5*	Own F	4½x4½	27.2	D	PS	Non	Own	Joh	V	N-E	N-E	Own	D	Own	A	3	Own	Own	S	½	4.70	17.3	A	Own	Pen	Own	Mot	Fir	2705
Republic 75	....	124°	33x5*	33x5*	Lyc CT	3¾x5	22.5	L	PC	Non	Own	Str	V	Bos	Bos	Ful	D	Ful	U	3	Spi	Eat	I	D	5.65	22.6	A	Eat	Mat	Jac	Nor	Fir	2700
§Ruggles 20R	....	128	34x5*	34x5*	Own 20R	4 x5	25.6	L	FP	Non	Per	Zen	G	Rem	Rem	B-L	D	B-L 31	U	3	Spi	Col 53000	B	¾	5.12	20.4	A	Col 5000	Det	Jac	Nor	Fir	2800
Selden Pacemaker	....	144	34x5	34x5	Her O	4 x5	25.6	L	PC	Non	Own	Str	G	Bos	B-L	B-L	D	B-L 31	U	3	....	Col 52027	B	F	....	....	A	Col 5086	....	....	Van	....	3580
Selden Pacemaker	....	144	34x5*	34x5*	Con 8R-6	3⅝x4½	27.2	L	PC	Non	Own	Str	G	Bos	Bos	B L	D	B-L 31	U	3	....	Col 52027	B	F	....	....	A	Col 5086	....	....	Van	....	3580
§Service 25	....	132	34x5*	34x5*	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Lon	Zen	V	Rem	Rem	B-L	P	B-L 30	U	3	M-E	Eat 1000	B	½	5.62	22.6	A	Shu 312	She	Ros	Bim	Fir	3500
§Standard 75	....	134°	34x5	34x5	Con J 4	3¾x5	22.5	L	PS	Sim	Lon	Str	V	Eis	Bos‡	B-L	D	B-L 31	U	3	Spi	Tim 6250	W	½	5.60	24.3	A	Tim 1250	Am	Gem	StM	Fir	3000
Stoughton C	....	130	34x4½*	34x4½*	Own	3⅜x4½	27.3	I	F	Non	Chi	Zen	V	Rem	Rem	Det	D	Own	U	3	The	Col 53000	S	¾	5.87	20.0	..	Col 5300	Own	Ros	Bim	Gdy	2480
§U. S. U	....	138	34x5*	34x5*	Bud WTU	3¾x5½	22.5	.	I C	Non	Lon	Str	V	Bos	Bos	Ful	D	Ful SU1	U	3	Blo	Cla B	B	¾	6.25	25.0	A	Shu 350	She	Lav	Sch	Fir	3400
United 25	....	131	30x5	30x5	Her OX	4 x5	25.6	.	PC	Non	Per	Str	G	Bos	Bos	B-L	D	B-L 31	U	3	Blo	Col 53000	B	¾	5.10	23.7	A	Shu 310	Det	Lav	Van	Fir	2910
Victor 25	1200	131	33x5*	33x5*	Her O	4 x5	25.6	.	FP	Non	Per	Zen	V	A-L	A-L	Ful	D	Ful LTU5	U	3	Pic	Col 5200	S	¾	5.1	20.4	B	Col 5000	Det	Lav	Van	Fir	3000
1½ Ton																																	
§Acme 20L	....	136	34x5*	34x5*	Con 8R	3⅜x4½	27.3	L	PC	Non	G&O	Zen	V	Bos	Bos‡	B-L	P	B-L	U	3	Blo	Tim 6258	W	½	6.25	30.0	A	Tim 1452	Det	Ros	Bim	Fir	3500
§Armleder 30	....	148°	34x4‡	34x6‡	Her OX	4 x5	25.6	L	PC	Non	Own	Zen	V	Bos	Bos‡	B-L	D	B-L	U	4	Spi	Tim	W	½	7.25	39.0	A	Tim	She	Ros	StM	Gdy	4400
Atterbury 24R	2450	150	34x4‡	34x6*	Bud KTU	4 x5¼	25.6	L	PC	Non	Own	Zen	V	Bos	Bos	B-L	D	B-L 31	U	3	Spi	Tim 6462	W	¾	6.50	31.2	A	Tim 1460	S.P	Gem	Arc	Fir	4750
§Autocar F	....	97	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	Non	Own	P	Own F	A	3	Spi	Own F	R	F	8.30	33.2	A	Own F	Del	Ros	Hoo	....	3800
§Autocar G	....	120	34x4‡	34x6‡	Own 2	4¾x4½	18.1	L	SP	Non	Own	Str	G	Bos	Non	Own	P	Own F	A	3	Spi	Own F	R	F	8.30	33.2	A	Own F	Del	Ros	Hoo	....	3900
Available JH	....	145	36x3½‡	36x5‡	Her O	4 x5	25.6	L	PC	Pie	Chi	Zen	G	Bos	Bos‡	B-L	D	B-L 30	U	3	M-E	Tim 6460	W	½	7.00	28.0	A	Tim	Tut	Ros	Sch	....	4000
§Bessemer H2	....	144	36x3½	36x5	Con J4	3¾x5	22.5	L	PS	Non	Stn	Str	G	Bos	Bij	B&B	P	B-L 35	A	3	Blo	Wis	R	½	....	....	A	Shu 350	Per	Ros	Sch	Fir	3800
Biederman	....	166°	32x5	32x5	Con 6M	3⅜x4½	27.3	L	PC	Han	Own	Zen	G	Del	Del	B-L	D	B-L 31	U	3	Spi	Tim	W	½	7.75	38.0	A	Shu	Mat	Ros	StM	Non	4200
Bridgeport A	2350	144	34x4‡	34x6‡	Bud WTU	3¾x5½	22.5	L	PC	Non	G&O	Zen	V	Eis	Bos	B-L	D	B-L 30	U	3	Spi	Tim 6460	W	½	....	....	A	Shu 350	....	Ros	Jon	....	3000
Brinton C	2500	138	34x4	34x5	Con N	3¾x5	22.5	L	PS	Non	Bus	Str	G	Bos	Non	B-L	D	B-L	U	3	Spi	Tim 6560	W	¾	....	33.6	..	Tim 1542	Tut	Ros	Sch	....	3900
Clydesdale 12	....	152	32x6*	32x6*	Con 8R	3⅜x4½	27.3	L	PC	Non	Own	Str	V	Bos	Bos	B-L	D	B-L 31	U	3	Spi	Tim 6258	W	½	6.75	32.4	A	Std 3780F	Per	Ros	Smi	Fir	3600
Clydesdale 14	....	174	32x6*	32x6*	Con 8R	3⅜x4½	27.3	L	PC	Non	Own	Str	V	Bos	Bos	B-L	D	B-L 31	U	3	Spi	Tim 6258	W	½	6.75	32.4	A	Std 3780F	Per	Ros	Smi	Fir	3700
Columbia H	2175	140	34x4	34x6	Hin 300	3¾x5¼	22.5	L	PC	Hin	Lon	Str	V	Spi	Bos	Det	D	D-G	U	3	Spi	Vul	W	F	7.50	....	..	Shu	Det	Own	StM	....	3800
Commerce Super 11	....	142	34x5	34x5	Con S4	4¼x4½	28.9	L	FP	Non	Lon	Zen	V	Bos	Bos	Ful	D	Ful SU12	U	3	U-M	Sal 1481	B	¾	5.87	23.4	A	Sal 1415	Amc	Ros	Smi	Fir	3575
Concord EO	2500	135	34x5*	36x6*	Bud	4 x5¼	25.6	L	..	....	Own	....	V	Bos	Bos	B-L	D	B-L	U	..	Spi	Tim	W	..	6.2	....	A	Tim	....	Ros	....	....	....
Corbitt D-22	2150	140	34x3½‡	34x5‡	Con J-4	3¾x5	22.5	L	FP	Sim	McC	Str	V	Eis	Bos‡	B-L	D	B-L 31	U	3	Spi	She W-103	W	½	7.80	25.9	A	She D343	She	Ros	Bim	Fir	4150
Day-Elder G	....	128	34x4	34x4‡	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Bus	Zen	V	Eis	Bos‡	B-L	D	B-L 20B	U	3	Spi	Tim 6258	W	½	6.25	20.7	A	Col 7018	She	Gem	Van	Fir	3600
Day Elder GST	....	128	34x4	34x5	Bud WTU	3¾x5⅛	22.5	L	PC	Non	Bus	Zen	V	Eis	Bos	B-L	D	B-L 20B	U	3	Spi	Tim 6258	W	½	6.25	20.7	A	Col 7018	She	Gem	Van	Fir	3000
Defiance	1095	140	34x4	34x6	Wis CAU	3¾x5	22.5	L	PC	Non	Chi	Zen	V	Bos	Bos	Ful	D	Ful LT	U	3	Spi	Own	W	½	7.75	....	A	She D343	Det	Lav	StM	Fir	3500
	....	....	....	....	Con J4	....	....	..	..	....	....	....	..	....	....	....	....	....	..	..	....	....	..	..	....	....	..	....	....	....	....	....	....
Denby 41	....	128	34x5*	34x5*	Her O	4 x5	25.6	L	PC	....	Lon	Zen	G	A-L	A-L	Ful	D	Ful	U	3	U-P	Col	S	F	5.8	23.2	..	Con	Det	Ros	StM	Fir	3315
Diamond T-T	....	144	36x3½	36x5	Hin 700	3¾x5¼	22.5	L	PC	Own	G&O	Str	V	Bos	Non	Cov	D	Cov JUC	U	4	Spi	Own	W	½	8.20	29.9	A	Tim 1452	Mat	Gem	....	....	4050
Diehl B	....	120	....	....	H-S 7000	3½x5	19.6	L	PS	Non	....	Zen	G	Bos	Non	M-E	D	Dur O2500B	U	3	M-E	Tor S327	I	D	5.30	....	..	Sal 1544E	Row	Ros	Way	Non	2500
Dixon D	2650	145	36x3	36x6	Con J-4	3¾x5	22.5	L	FP	Pie	G&O	Zen	G	Bos	Non	Ful	D	Ful GU-8	U	4	Spi	Tim 6460	W	F	Opt	Opt	A	Tim 1520	S.P	Ros	StM	....	4300
Duplex GH	....	138	35x5*	36x6*	Bud WTU	3¾x5¼	22.5	L	PC	Non	Mod	Zen	G	Wes	Wes	Cov	D	Cov	U	3	Pet	She	W	½	6.50	26.0	A	She	Pen	Ros	Mot	Fir	3900
Federal S-23	....	144	36x3½‡	36x5‡	Con J-4	3¾x5	22.5	L	FP	Non	Own	Zen	V	Eis	Rem†	B&B	P	Own S23	A	4	Pet	Tim 6460	W	½	7.25	36.2	A	Own S-23	....	Gem	....	....	3900
Fisher Fast Freight	1295	146	30x5	32x6	Con S4	4¼x4½	28.9	L	FP	Non	Lon	Str	V	....	Bos	Lon	D	Own	U	3	Blo	Col Spec	B	F	5.12	16.6	A	Col Spec	Am	Gem	Own	Fir	3500
Front Drive FT	2800	120	36x6	36x6‡	Bud CTU	3¾x5½	22.5	L	PC	Pie	Hoo	Zen	V	Spi	Opt	B&B	P	Own FP	A	3	Own	Own D-2	W	½	7.25	32.5	A	Own FTT	Tut	Ros	Bid	....	3950

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For full name and address of manufacturer and information regarding complete line see page 51

Trade Name and Model	General				Engine									Electrical System		Clutch		Gearset				Rear Axle			Gear Ratios		Brakes, Location	Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.) (stripped)
	Chassis Price	Standard Wheelbase (inches)	Tire Size §§ Front (inches)	Tire Size §§ Rear (inches)	Make and Model	Bore and Stroke (inches)	N.A.C.C. Rated H.P.	Valve Arrangement	Oiling System	Governor (Make)	Radiator (Make)	Fuel System Carburetor (Make)	Fuel System Fuel Feed	Ignition System (Make)	Generator and Starter (Make)	Make	Type	Make and Model	Location	No. of Forward Speeds	Universals (Make)	Make and Model	Final Drive	Type	Total Reduction in High	Total Reduction in Low							
2 Ton—Con'd																																
Concord H	3700	150	36x4‡	36x4‡	Bud EBU	4 x5¼	25.6	L	PC	Non	Own	Zen	V	Eis	Wes	B-L	D	B-L 50	U	4	Spi	Tim 6460	W	½	6.75	36.1	...	Tim 1520	....	Ros	Arc	Fir	4250
Corbitt C	3000	148	36x4‡	36x7‡	Con K-4	4 ⅛x5¼	27 2	L	FP	Sim	McC	Str	V	Eis	Bos‡	B-L	D	B-L 35	U	3	Spi	She W-103	W	½	10.6	35 6	A	She 3FA10	She	Ros	Bim	Fir	5265
Day-Elder H	....	144	34x4*	34x5‡	Bud WTU	3¾ x5 ⅛	22 5	L	PC	Non	Bus	Zen	V	Eis	Bos‡	B-L	D	B-L 31	U	3	Spi	Tim 6462	W	½	7.75	37.2	A	Col 7018	She	Gem	Van	Fir	4100
Day-Elder HST	....	144	34x4	34x6	Bud WTU	4 x5 ⅛	22.5	L	PC	Non	Bus	Zen	V	Eis	Bos	B-L	D	B-L 31	U	3	Spi	Tim 6462	W	½	7.75	37.2	A	Col 7018	She	Gem	Van	Fir	4100
Day Elder HSM	....	144	34x4	34x5	Bud KBU	4 x5¼	25.6	L	PC	Non	Bus	Zen	V	Eis	Bos	B-L	D	B-L 31	U	3	Spi	Tim 6462	W	½	7.75	37.2	A	Col 7018	She	Gem	Van	Fir	4300
Day Elder HSMT	....	144	34x4	34x6	Bud KBU	4 x5¼	25.6	L	PC	Non	Bus	Zen	V	Eis	Bos	B-L	D	B-L 31	U	3	Spi	Tim 6462	W	½	7.75	37.2	A	Col 7018	She	Gem	Van	Fir	4300
Denby 33	....	144	36x3½	36x7	Con J-4	3¾ x5	22.5	L	PC	....	Lon	Zen	G	Eis	....	Ful	D	Ful	U	4	U-P	Cla	I	D	7.25	29.0	...	Con	Det	Ros	StM	....	3740
Dixon	....	145	....	....	Con J-4	3¾ x5	22.5	L	FP	Pie	G&O	Zen	V	Eis	Bos	Ful	D	Ful GU7	U	4	Har	Tim 6460	W	½	....	....	A	Tim 1520	S.P	Ros	....	Fir	4450
Duplex A	....	155	34x4‡	36x7‡	Hin HAA	4 x5¼	25.6	L	PC	Non	Mod	St	G	Eis	Wes	Cov	D	Cov RU3C	U	3	Pet	She W-103	W	½	7 75	30.0	A	She 33FA	Pen	Ros	Mot	Fir	4400
Eagle 100	2275	130	34x4‡	34x7‡	Bud GTU	4 x5¼	25.6	L	PC	Non	Own	Zen	G	Eis	Bos‡	Cov	D	Cov MUC	U	3	M-E	Rus 6000-I	I	D	8.80	31.8	A	Col 7000	Cha	Lav	Std	Fir	4100
Eagle 104	2395	130	34x4‡	34x8	Bud KTU	4 x5¼	25.6	L	PC	Non	Own	Zen	G	Eis	Non	Cov	D	Cov MUC	U	3	M-E	Rus 6005-I	I	D	8.31	....	A	Col 7000	Cha	Ros	StM	Fir	4300
Fageol 235	3300	136	34x4	34x7	Wau FU	4 x5¾	25.6	L	PC	Wau	Own	Zen	V	Spl	Spl	B-L	D	Own A	U	7	U-P	Tim 6460	W	½	5.60	59.7	A	Tim 1520	Mat	Ros	....	Non	5500
Forschler D	....	144	34x4	36x7	Con C-4	4 ⅛x5¼	27.2	L	PC	Dup	Own	Zen	G	Bos	Opt	Ful	D	....	U	3	Har	....	W	½	....	....	....	....	Own	Ros	Smi	Non	4735
Fulton C	1985	137	34x4	34x8	Bud WTU	3¾ x5 ⅛	22.5	L	PC	Non	G&O	Zen	G	Sim	Non	Cov	½	Cov MUC	U	3	Spi	She W-103	W	½	8.66	....	....	Col 7013	....	Lav	Hoo	Non	4900
Gotfredson 41	....	146½	36x8*	40x8*	Bud KBUI	4 x5¼	25.6	L	PC	Sim	McC	Zen	V	RBo	Rem	B&B	F	B-L 35	U	4	Spi	Tim 6462	W	½	7.25	38.7	A	Tim 1460	Det	Gem	M-M	Fir	5300
Grass Premier 70	2650	144	34x5†	34x7†	Wau Y	4 x5¼	27.2	L	PC	Opt	Chi	Str	V	Eis	Eis	B-L	D	B-L 35	U	4	Spi	Tim 6462	W	½	7.25	36.2	B	Con	Det	Ros	StM	Fir	4400
Guilder E	2975	152	36x4	36x8	Bud GTU	4 x5¼	25.6	L	PC	Pie	G-L	Zen	G	Eis	Bos	B-L	D	B-L 51	U	4	M-E	Wis DD	W	F	7.75	41.0	...	Wis	Mer	Ros	Van	Non	5100
G.W.W	2250	147	36x6*	38x7*	Wis SU	4 x5	25.6	H	PC	Non	Own	Zen	G	Bos	Bos	Ful	D	Ful GU5	U	4	Blo	Cla 2D	I	D	8.00	38.4	...	Shu 350	G-C	Lav	Bim	Fir	4100
Hahn K	2850	140°	36x4	36x7	Con K4	4 ⅛x5¼	27.2	L	FP	Pha	Chi	Str	G	Bos	Del	B-L	D	....	U	4	Spi	Tim 6462	U	...	7.00	....	A	Tim 1520	She	Ros	Opt	Opt	4700
Hug HA	1750	118	34x5*	38x7*	Bud WTU	3¾ x5 ⅛	22.5	L	PC	Non	Per	Zen	G	Bos	Bos	Ful	D	Ful	U	3	Blo	Own	R	½	6.00	24.0	A	Wis	Tut	Ros	Van	Fir	3670
§Indiana 20	....	150°	36x4	36x7	Own 38	4 ⅛x5½	27.2	L	PC	Pie	McC	Str	G	Eis	Rem‡	B&B	P	B-L 35	A	4	Spi	She W-103	W	½	7.75	41.5	A	She D-370	She	Woh	Bim	....	5335
International 43	....	130	36x4‡	36x7‡	Own 43	3¾ x5	22.5	L	SP	Own	Own	Own	G	RBo	Own	Own	D	Own 43	A	4	Own	Own 43	I	D	9.00	53.1	B	Own 43	....	Own	Own	....	4790
Kenworth M	3100	150	36x4	36x7	Bud KBU	4 x5¼	25.6	L	PC	Non	Own	Str	V	Bos	Bos†	B-L	P	B-L 35	U	4	Spi	She W-103	W	½	8.66	46.8	A	She D343	Lah	Ros	Smi	....	4620
Krebs 44	....	160°	36x4‡	36x7‡	Con S4	4 ¼x4 ½	28.9	L	PC	Pie	Own	Zen	V	Bos	Bos	B-L	D	B-L 35	U	4	Spi	Tim 6462	W	½	8.75	46.8	A	Tim 1460	Mat	Ros	Smi	Fir	5000
Krebs 46	....	160°	36x4‡	36x7‡	Con S8R	3 ⅜x4 ½	27.3	L	PC	Pie	Own	Zen	V	Bos	Bos	B-L	D	B-L 31	U	3	Spi	Tim 6462	W	½	8.75	35.0	A	Tim 1460	Mat	Ros	Smi	Fir	4800
Luedinghaus	....	145°	36x4‡	36x8‡	Wau RU4R	4 ¼x5¾	28.9	L	PC	Non	Own	Zen	..	Spl	Non	B&B	P	D-G	U	4	....	Tim	W	F	....	....	A	Shu 510	....	Lav	....	....	4900
Maccar V1	....	163	36x4	36x7‡	Wis TAU	4 x6	25.6	L	PC	Pie	Own	Zen	V	Eis	Bos	B-L	D	B-L 35	U	4	Spi	Tim 6460	W	½	8.75	46.8	A	Tim 1526	Row	Ros	Day	....	4900
Maccar V-3	....	163°	36x4‡	36x7‡	Wis UAU	4 ¼x6	28.9	L	PC	Pie	Own	Zen	V	Eis	Bos‡	B-L	D	B-L 35	U	4	Spi	Tim 6460	W	½	8.75	46.8	A	Tim 1526	Row	Ros	Day	....	4900
§Mack AB	3300	146½	36x4‡	36x4‡	Own AB	4 ¼x5	28.9	L	PS	Own	Own	Str	G	Spl	N–E‡	Own	D	Own AB	U	4	Spi	Own AB	C	D	*6.99	33.8*	B	Own AB	Mer	Own	....	....	....
§Mack AB	3750	146½	36x4‡	36x4‡	Own AB	4 ¼x5	28.9	L	PS	Non	Own	Str	G	Spl	N–E‡	Own	D	Own AB	U	4	Spi	Own AB	R	F	*7.60	36.8*	B	Own AB	Mer	Own	....	....	....
Moreland EX	2950	150	36x4‡	36x7‡	Con K-4	4 ⅛x5¼	27.3	L	FP	Non	Own	....	V	Spl	Spl	A-L‡	Own	Own 19C	A	4	Pet	Tim 6461	W	½	7.00	33.8	A	Tim 1452	U.S	Ros	Smi	....	4980
Moreland EC	3780	178	34x5*	34x5*	Con K-4	4 ⅛x5¼	27.3	L	FP	Non	Own	....	V	Spl	Opt	B-L	D	B-L 51	U	4	Pet	Tim 6414	W	½	6.00	29.0	...	Tim 1550	U.S	Ros	Bud	....	4590
§Nash 3018	2150	144	34x4‡	34x7‡	Own 4	3¾ x5 ¼	22.5	L	PS	Sim	.....	Str	G	Eis	A-L	B&B	P	D-G C	A	4	Own	Cla 2D	I	D	9 00	39.0	B	Own 3018	Har	Lav	A-W	....	3850
Nash 4017	2750	124	36x6	36x6‡	Bud HU	4 ¼x5½	28.9	L	PC	Sim	.....	Str	G	Eis	Non	B&B	P	Own 4017	A	4	Own	Own 4017	D	D	8.50	42.3	B	Own 4017	Har	Lav	....	....	6250
National M	....	137°	34x5*	36x6*	Wau Y	4 x5¼	25.6	L	PC	.....	Bus	Zen	G	Bos	Bos	B–L	D	B-L 30	U	3	Spi	Tim 6460	W	½	7.00	23.3	A	Tim 1520	Mat	Ros	Van	Fir	4000
Nel'n & LeMoonGP2	....	Opt	34x4	34x7	Con S4	4 ¼x4 ½	28.9	L	FP	Non	Chi	Str	G	Bos	Bos	B–L	D	B-L 30	U	3	Own	Tim 6460	W	½	7.00	....	A	Tim 1520	Tut	Ros	StM	....	6300
Noble B31	2900	162	36x4‡	36x7‡	Bud GTU	4 x5¼	25.6	L	PC	Pie	Chi	Str	V	Eis	Bos	Ful	D	Ful GU7	U	4	M-E	She 103	W	½	8.66	41.5	A	She D-343	Tut	Lav	Bim	Fir	4850
O.K K	2250	149	36x3½	36x5	Bud ITU	4 x5½	25.6	L	PC	Non	Own	Zen	V	Eis	Non	Ful	D	Ful TU3	U	3	Har	Wis 800H	W	½	9.33	....	...	Shu 510	Tut	Ros	Bim	Gdy	4310
Oneida B9	2825	144	36x3½*	36x6‡	Hin 400	4 x5½	25.6	L	PC	Hin	Mod	Str	V	Apo	Bos†	Ful	D	Ful LT	A	3	Pet	Wis 800-J	W	½	8.25	33.0	A	Shu 510	Mat	Ros	Pru	....	5100
Oshkosh AW	3080	130	36x6*	36x6*	Wis SU	4 x5	25.6	H	PC	Dup	Own	Str	V	A-L	A-L	B-L	D	B-L 35	U	4	Pet	Own A	B	F	8.00	33.0	A	Own A	Tut	Ros	Roy	Fir	4250
Oshkosh AAW	3180	165	36x6	36x6*	Wis SU	4 x5	25.6	H	PC	Dup	Own	Str	V	A-L	A-L	B-L	D	B-L 35	U	4	Pet	Own AA	B	F	8.00	33.0	A	Own AA	Tut	Ros	Roy	Fir	....
§Patriot X9L	....	146	36x4	36x7	Hin 400	4 x5¼	25.6	L	PC	Non	Own	Zen	V	Eis	Bij	Cov	B	Ful G7	A	4	The	Tim 6566	W	F	8.50	....	A	Shu 510	Mar	Ros	Bim	....	4400
Penn	2300	144	34x5	38x7	Bud WTU	3⅜ x5 ⅛	21.0	L	PC	Non	G&O	Zen	G	Bos	Bos	Ful	D	Ful-TU¾	U	3	Spl	She W1501	W	½	9.25	37.0	...	Tor AAS	Row	Ros	Smi	Gdy	3975
Pennford	775	138	30x3½	34x5	Ford	3¾ x4	22.5	L	SP	Non	Ford	Hol	G	Ford	Ford	Ford	D	Jum	A	3	U-P	She W1002	W	½	7.75	....	...	Ford	Row	Ford	Hoo	Gdy	2300
Pierce Arrow XA	3300	150	36x4‡	36x5	Own XA	4 x5½	25.6	T	FP	Own	Own	Str	P	Del	Del	Own	D	Own XA	A	4	Spi	Own XA	W	½	8.5	44.2	A	Own XA	S.P	Own	....	Opt	6280
Rainier R28	3090	157	34x4‡	34x8‡	Con K4	4 ⅛x5¼	27.2	L	FP	Pie	Bus	Zen	V	Eis	Del‡	B-L	D	B-L 35	A	4	Spi	She W-103	W	½	7.75	41.5	A	She D-370	S.P	Ros	Jon	....	4900
Rainier R28	3190	175	34x4‡	34x8‡	Con K4	4 ⅛x5¼	27.2	L	FP	Pie	Bus	Zen	V	Eis	Del‡	B-L	D	B-L 35	A	4	Spi	She W-103	W	½	7.75	41.5	A	She D-370	S.P	Ros	Jon	....	5050
Republic 11X	....	144°	34x4‡	34x6‡	Con J4	3¾ x5	22.5	L	FP	Pha	Own	Str	V	Bos	Bos‡	Ful	D	Ful	U	3	Spi	Eat	I	D	7.20	28.8	B	Eat	Mat	Jac	Van	Fir	3900
Ruggles 41	....	148	30x5*	34x7*	Own 40	4 x5	25.6	L	PC	Non	Per	Zen	G	Bos	Rem‡	B-L	D	B-L 31	U	4	Spi	Wis 66F	R	F	7.00	37.4	A	Col 7000	Det	Jac	Nor	Fir	4250
Sandow J8	....	144	36x4	36x7	Her O	4 x5	25.6	L	PC	Non	Chi	Zen	..	Eis	Bos	Ful	D	Ful TU3	....	3	Spi	She W-103	I	D	8.66	....	....	She 343	Own	Ros	....	....	4000
§Schacht G	3200	156	36x4‡	36x7‡	Wis UAU	4 ¼x6	28.9	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	P	Own G	A	4	Spi	Own G	W	F	8.66	41.0	B	Own G	She	Own	StM	....	6200
Schacht J	2600	158	36x4	36x7	Wis SU	4 x5	25.6	H	PC	Non	Own	Zen	V	Bos	Non	Ful	D	Ful GU7	U	4	Blo	Wis 60D	R	½	7.00	33.6	A	Shu 510	She	Ros	.....	Non	4900
Selden 33	....	146	34x4‡	34x6‡	Con K-4	4 ⅛x5¼	27.2	L	FP	Pha	Lon	Str	G	Eis	N–E‡	B-L	D	B-L 35	U	4	Spi	Tim 6410	W	½	Opt	Opt	A	Tim 1454	Per	Ros	Van	Fir	4400
Sterling DW-12	3095	142	36x4	36x7	Own FU	4 x5¾	25.6	L	PS	Wau	Own	Zen	G	Eis	....	B-L	D	B-L 35	U	4	Spi	Tim 6462	W	½	6.5	34.8	...	Tim 1460	Mat	Ros	Hoo	....	5180
Stewart 18	1870	160	34x4‡	34x6‡	Lyc C	4 x5	25.6	L	FP	Non	Own	Zen	G	Rem	Rem	Ful	D	Ful LTU-4	U	3	Spi	Cla 1-D	B	¾	6.28	25.1	B	Col	Det	Gem	Cla	Fir	3400
Stoughton D	....	140	36x4	36x7	Own	4 ⅛x5¼	..	L	FP	Sim	Own	Zen	G	Eis	....	B-L	....	R-L35	U	4	The	She W103	W	½	8.66	46.3	....	She D343	Own	Ros	Bim	Gdy	4600
Traffic 4000C	1695	132	34x3½‡	34x5‡	Con N-4	3¾ x5	22.5	L	FP	Non	Own	Car	G	Bos	Bos†	Cov	D	Cov MUNC	U	3	The	Rus 34-I	I	D	7.00	25.6	A	Own	Det	Own	Opt	Fir	3175
Transport 36	....	140	36x3½‡	36x6‡	Bud KTU	4 x5½	25.6	L	PC	Dup	Mod	Zen	G	Eis	Rem‡	Ful	D	Ful GU7	U	4	Blo	Cla I-D	I	D	7.25	34.8	B	Col 7000	Det	Jac	Mot	.....	4300
Traylor C	2850	146	36x4‡	36x7‡	Bud ITU	4 x5½	25.6	L	PC	Pie	G&O	Zen	G	Spl	West	Cov	D	Cov MUSC	U	3	M-E	She W-103	W	½	7.75	28.0	A	She D-343	N-E	Ros	Sch	.....	5500
Triangle C	2285	147	36x4‡	36x7‡	Wau BUX	3¾ x5¼	22.5	L	PC	Wau	Per	Str	G	Eis	N–E‡	Ful	D	Ful LTU5	U	3	Blo	Cla 2D	I	D	9.10	36.0	B	Eat CC3B	Det	Gem	Roy	Fir	5200
United 32	....	148	34x4	34x7	Her OX	4 x5	25.6	L	PC	Non	Per	Str	G	Bos	.....	B-L	D	B-L 31	U	3	Blo	Wis 40	R	½	6.00	24.5	A	Shu 510	Det	Lav	Van	.....	3740
§United 35	....	148	34x5*	34x7‡	Her OX	4 x5	25.6	L	PC	Non	Per	Str	G	Bos	Non	B-L	D	B-L 31	U	3	Blo	Wis 51	R	½	7.75	30.7	A	Shu 310	Det	Lav	Van	Fir	3810
§U.S. NW24	....	144	36x4‡	36x6‡	Bud WTU	3¾ x5 ½	22.5	L	PC	Non	Lon	Str	V	Bos	Opt	Ful	D	Ful LTU5	U	3	Blo	She W-103	W	F	8.75	35.0	...	Shu 350	She	Lav	Sch	.....	4550
Victor 50	2100	142	34x4‡	34x7‡	Her O	4 x5	25.6	L	FP	Pie	Per	Zen	G	Eis	....	Ful	D	Ful GU10	U	4	Blo	Wis 35	R	½	7.0	33.6	A	Shu 5410	Det	Lav	Smi	....	4500
Wachusett K	3200	154	....	....	Con K4	4 ⅛x5¼	27.2	L	FP	Non	G&O	Zen	V	Bos	Bos	B-L	D	B-L 35	U	4	Har	Tim 6460	W	F	7.75	41.5	...	Tim 1520	.....	Ros	.....	Fir	4800
White 20	2950	168	36x4‡	36x7‡	Own GK	3¾ x5 ½	22.5	L	SP	Non	Own	Zen	G	.....	.....	Own	D	Own 20	A	5	Spi	Own 20	B	½	9.25	32.1	A	Own 20	.....	Own	.....	.....	4680
Witt-Will P	2650	168	36x3½	36x7	Con C-4	4 ⅛x5¼	27.2	H	FP	Pie	Own	Zen	G	Eis	Non	B-L	D	B-L 35	U	4	Spi	Tim 6460	W	½	7.10	.....	...	Tim 1520	Del	Ros	Arc	Fir	4600
2¼ Ton																																
Selden Roadmaster	....	154	32x6*	34x7*	Con 6B	3¾ x5	33.7	L	FP	Non	Own	Str	V	Bos	Bos	B-L	D	B-L 35	U	4	.....	Cla 720	B	½	Opt	Opt	A	Tim 1452	.....	Ros	Van	Fir	4740

2½ Ton																																
§Ace 56	3350	156°	36x4	36x8*	Bud EBU	4¼x5½	28.9	H	PC	Pie	Own	Zen	V	Eis	Wes	B-L	D	B-L 50	A	4	U-M	Tim 6666	W	F	8.50	45.5	...	Tim 1544B	Mat	Ros	Dor	Fir	5650

2¼ Ton

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For full name and address of manufacturer and information regarding complete line see page 51

Trade Name and Model	General: Chassis Price	General: Standard Wheelbase (inches)	General: Tire Size §§ Front (inches)	General: Tire Size §§ Rear (inches)	Engine: Make and Model	Engine: Bore and Stroke (inches)	Engine: N.A.C.C. Rated H.P.	Engine: Valve Arrangement	Engine: Oiling System	Engine: Governor (Make)	Engine: Radiator (Make)	Engine: Fuel System: Carburetor (Make)	Engine: Fuel System: Fuel Feed	Electrical System: Ignition System (Make)	Electrical System: Generator and Starter (Make)	Clutch: Make	Clutch: Type	Gearset: Make and Model	Gearset: Location	Gearset: No. of Forward Speeds	Universals (Make)	Rear Axle: Make and Model	Rear Axle: Final Drive	Rear Axle: Type	Gear Ratios: Total Reduction in High	Gear Ratios: Total Reduction in Low	Brakes, Location	Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.) (stripped)
2½Ton—Con'd																																	
§Union FWC	8000	200	38x7	42x9	Wis TAU	4 x6	25.6	L	PC	Dup	G&O	She	G	Eis	L-N	Ful	D	Ful GU-	U	4	Blo	Wal 25A	R	F	...	37.7	...	Shu 650B	Mat	Jac	Smi	Gdy	...
§United 50	....	156	34x4*	34x8‡	Her OX	4 x5	25.6	L	PC	Non	Per	Str	G	Bos	.....	B-L	D	B-L 35	U	4	Blo	Wis 66	R	½	7.75	41.5	A	Shu 510	Det	Lav	Van	....	4120
Victor 70	2650	156	36x4‡	36x8‡	Her O	4 x5	25.6	L	FP	Pie	Per	Zen	G	Eis	.....	Ful	D	Ful GU10	U&A	8	Blo	Wis 88E	R	½	8.66	200.	A	Shu 5550	Det	Lav	Smi	.....	5625
Victor 60	2400	156	36x4‡	36x8‡	Her O	4 x5	25.6	L	FP	Pie	Per	Zen	G	Eis	.....	Ful	D	Ful GU10	U	4	Blo	Wis 88E	R	½	8.66	41.6	A	Shu 5550	Det	Lav	Smi	.....	5400
Wachusett L	3800	170	36x5	36x10	Con L-4	4½x5½	32.4	L	FP	Non	G&O	Zen	V	Bos	Bos	B-L	D	B-L 55	U	4	Har	Tim 6560	W	F	7.75	41.5	...	Tim 1542	Sav	Ros	Smi	Fir	5200
Ward LaFrance 2B	....	170	36x4	36x8	Own GU	4¾x5¾	30 .6	L	PC	Own	Own	Str	G	Bos	A-L	B-L	D	B-L 51	A	4	Spi	Tim	W	F	7.25	38.8	A	Own	Row	Ros	Hoo	.....	5900
White 51	3750	170	36x5	36x8	Own GR	4¼x5¾	28.9	L	PC	Non	Own	Zen	V	.....	.....	Own	P	Own	U	4	Spi	Own	R	½	7.53	31.06	...	.....	.....	Own	.....	.....	5700
Wilcox CC	3000	135	36x4	36x3½†	Own CC	4¼x5	28 .9	L	PC	Dup	G&O	Str	G	Bos	West‡	Own	D	Own O	A	4	Own	Wal 25A	R	½	8.60	42.3	B	Shu 550	She	Own	Cla	.....	5000
Winther 44	3100	161	34x5	34x7	Wis SU	4 x5	25.6	H	FP	Non	Own	Str	V	Bos	Bos	Ful	D	Ful G7	U	4	Pet	Own	I	...	7.00	33.6	B	Tim	Mat	Lav	Own	.....	4375
Witt-Will S	2950	146	36x4‡	36x8	Con K-4	4½x5¼	27.2	L	FP	Pie	Own	Zen	V	Eis	Non	B-L	D	B-L 51	U	4	Spi	Tim 6560	W	F	8 25	40.0	A	Tim 1544	She	Ros	Arc	Fir	5000
3 Ton																																	
Acme K	....	200	36x6	36x6†	Con 6B	3¾x5	33.7	L	PC	Dup	G&O	Zen	V	Eis	Del	B&B	P	Cot R	U	4	Blo	Tim 6511S	W	F	6.80	35.3	A	Tim 1540B	Det	Ros	Bud	.....	6900
Acme 60	....	152	36x4‡	36x7‡	Con K-4	4½x5¼	27.2	L	FP	Dup	G&O	Zen	V	Eis	Del ‡	B&B	P	Cot RU	U	4	Blo	Tim 6560	W	F	9.25	48.1	A	Tim 154 OB	Det	Ros	Bim	.....	4830
§Acme 60L	....	156	36x4‡	36x7‡	Con L-4	4½x5½	32.4	L	FP	Dup	G&O	Zen	V	Eis	Del‡	B&B	P	Cot R	U	4	Blo	Tim 6560	W	F	8.50	42.0	A	Tim 1540B	Det	Ros	Int	.....	5050
Autocar H	....	114	34x6	36x10	Own H	4 x5½	25.6	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own Y	A	4	Spi	Own H	R	F	7.72	46.3	A	Own H	Del	Ros	Hoo	.....	5500
Autocar K	....	138	34x6	36x10	Own H	4 x5½	25.6	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own Y	A	4	Spi	Own H	R	F	7.72	46.3	A	Own H	Del	Ros	Hoo	.....	5600
Brockway K13	....	153	36x4	36x8	Con K4	4½x5¼	27.2	L	FP	Pha	Bus	Zen	V	Eis	L-N	B-L	D	B-L 35	A	4	Spi	Tim 6566	W	F	7.75	.....	A	Tim 1542	She	Ros	Day	Non	5260
Brockway K16	....	154⅜	36x4	36x8	Con K4	4½x5¼	27.2	L	FP	Pha	Bus	Zen	V	Eis	L-N	B-L	D	B-L 55	A	7	Spi	Tim 6566	W	F	7.75	.....	A	Tim 1542	She	Ros	Day	Non	5260
Brockway KR	....	156	36x4	36x8	Con L4	4½x5¼	27.2	L	FP	Pha	Bus	Zen	V	Eis	L-N	B-L	D	B-L 55	A	4	Spi	Tim 6566	W	F	7.75	.....	A	Tim 1542	She	Ros	Day	Non	5760
§Clinton 65	3550	184	34x5‡	34x5†	Bud ETU	4¼x5½	28.9	L	PC	K.P.	Own	Zen	G	..	Bos	B-L	D	B-L 55	A	4	M-E	Tim 6566	W	F	8 50	45.5	A	Tim 1542B	Per	Ros	StM	..	5925
Clydesdale 6	....	163	36x5	36x5†	Con L4	4½x5½	32.4	L	FP	Own	Own	Zen	V	Bos	Bos	B-L	D	B-L 51	A	4	Spi	Tim 6566	W	F	9.25	49.4	A	Tim 1544B	Per	Ros	Smi	Non	5850
Clydesdale 6X	....	163	36x4	36x8	Con K4	4½x5¼	27.2	L	FP	Own	Own	Zen	V	Bos	Bos	B-L	D	B-L 51	A	4	Spi	Tim 6566	W	F	9.25	49.4	A	Tim 1544B	Per	Ros	Smi	Non	5700
§Columbia K	3450	150	36x5	36x12	Hin 500	4¼x5½	28.9	L	PC	Hin	Lon	Str	V	Spi	Bos	Det	D	D-G	A	4	Spi	Vul	W	F	9.50	.....	...	Shu	Det	Own	Van	.....	5130
Concord JL	3600	170	36x4‡	36x4†	Bud EBU	4¼x5½	28.9	L	PC	Pie	Own	Zen	V	Eis	Eis	B-L	D	B-L 50	U	4	Spi	Tim 6560	W	F	9.25	49.4	A	Tim 1544	....	Ros	Arc	Fir	5500
Corbitt R	3500	158	36x4‡	36x8‡	Con L-4	4½x5½	32.4	L	FP	Sim	McC	Str	V	Eis	Bos‡	B-L	D	B-Li 51	U	4	Spi	She W-21	W	½	10.30	55.1	A	She 3FA10	She	Ros	Smi	.....	6160
Day-Elder J	....	156	36x4‡	36x8‡	Bud EBU	4¼x5½	28.9	L	PC	Mon	Bus	Zen	V	Eis	Bos‡	B-L	D	B-L 51	U	4	Har	Tim 6566	W	F	9.25	49.5	A	Tim 1544	She	Gem	Van	Fir	6100
Denby 35	....	155	36x4	36x8	Con K-4	4⅛x5¼	27.2	L	PC	.....	Lon	Zen	G	Eis	.....	Ful	D	Ful	U	4	U-P	Cla	I	D	8.15	45.3	...	Con	Det	Ros	Smi	.....	5000
Double Drive TT	4000	144	36x6‡	36x6‡	Bud ETU	4¼x5½	28.9	L	PC	Pie	Lon	Zen	V	Spl	Opt	Det	D	Own D. T. P.	A	4	Own	Own D. T. T.	W	½	8.50	39.5	B	Own FTT	Tut	Ros	Std	...	6250
Duplex AC	....	160	34x5‡	36x8	Bud EBUI	4¼x5½	28.9	L	PC	Opt	Mod	Str	V	Eis	Non	B-L	D	B-L 50	U	4	Pet	Vul 4	W	F	7.75	45.4	A	Vul 4	Pen	Ros	Mot	Fir	5500
Fageol 340	4000	150	36x5	36x10	Wau CU	4¾x5¾	30.6	L	PC	Wau	Own	Zen	V	Spl	Spl	B-L	D	Own B	A	7	Spi	Tim 6562	W	F	5.60	59.5	A	Tim 1520	Mat	Ros	Bud	.....	4600
Fageol 360 Spec	5250	152	36x6*	36x6†	HaS	4¼x5½	28.9	H	PC	H-S	Lon	Zen	V	Del	Del	B-L	D	B-L 51	U	4	Spi	Tim 6562	W	F	.....	.....	A	Tim 1520	Mat	Ros	Bud	.....	6500
Forschler E	....	144	36x4	36x8	Con C-4	4⅛x5¼	27.2	L	PC	Dup	Own	Zen	V	Bos	Non	Ful	D	.....	..	4	Har	.....	W	½	.....	.....	.....	.....	Own	Ros	Smi	.....	5200
F.W.D. B	4200	124	36x6‡	36x6‡	Wis A	4¾x5½	36.1	T	PC	Pie	McC	Str	V	Eis	N-E‡	H-S	D	Cot DAE	A	3	Own	Own B	B	F	8.90	35.6	B	Own B	Tut	Ros	Sch	.....	6300
Gary Y30	3550	150	36x6*	40x8*	Bud YBU-I	4½x6	32.4	L	PC	McC	Chi	Str	V	Eis	.....	B-L	D	B-L	A	4	Spi	Tim	W	F	8.50	41.0	A	Tim	Mer	Ros	StM	.....	5680
Gotfredson 60	....	152½	36x4‡	36x10‡	Bud EBUI	4¼x5½	28.9	L	PC	Sim	McC	Zen	V	Bos	Non	B-L	D	B-L 51	A	4	Spi	Tim 6562	W	F	9.25	49.4	B	Tim 1526	Det	Gem	Day	Non	6200
Gramm-Bernstein 30	....	150	36x4‡	36x4†	Hin HA 500	4¼x5½	28.9	L	PC	Hin	Own	Str	G	Eis	N-E	Own	D	Own	A	4	Own	She W-21	W	½	8.75	46.8	B	She 370	Per	Ros	Smi	Fir	6640
Guilder H	3500	152	36x5	36x10	Bud ETU	4¼x5½	28.9	L	PC	Pie	G&O	Zen	G	Eis	Bos	B-L	D	B-L 51	U	4	M-E	Wis	W	F	7.75	42.0	...	Shu 5550	Mer	Ros	Van	Non	5600
Hahn L	3750	149°	36x4	36x10	Con L4	4½x5½	32.4	L	FP	Pha	Chi	Str	G	Bos	Del	B-L	D	.....	..	4	Spi	Tim 6566	W	...	8.5	.....	A	Tim 1542	Mer	Ros	Opt	Opt	5900
International 63	....	140	36x5‡	36x8‡	Own 63	4¼x5	28.9	L	SP	Own	Own	Own	G	RBo	Rem‡	Own	D	Own 63	U	4	Own	Own 63	I	D	9 00	53.1	B	Own 63	....	Own	Own	.....	5660
Kenworth K-S	3750	160	36x4‡	36x8‡	Bud EBU	4¼x5½	28.9	L	PC	Non	Own	Str	V	Bos	Bos†	B&B	P	Cot RU	U	4	Spi	She W-21	W	½	8.66	46.8	A	She D-370	Lah	Ros	Smi	.....	6300
Krebs 64	....	163°	36x5‡	36x10‡	Con L-4	4½x5½	32.4	L	PC	Pic	Own	Zen	V	Bos	Bos	B-L	D	B-L 55	A	4	Spi	Tim 6566	W	F	9.25	87.8	A	Tim 1544	Mat	Ros	Smi	Fir	6100
§Maccar H!	....	163	36x4‡	36x5†	Wis UAU	4¼x6	28.9	L	PC	Pie	Own	Zen	V	Eis	Bos‡	B-L	D	B-L 51	U	4	Spi	Tim 6566	W	F	8.50	45.4	A	Tim 1544B	Row	Ros	Day	.....	6300
Maccar H-3	....	163°	36x4‡	36x5†	Wis VAU.	4½x6	32.4	L	PC	Pie	Own	Zen	V	Eis	Bos‡	B-L	D	B-L 51	U	4	Spi	Tim 6566	W	F	8.50	45.4	A	Tim 1544B	Row	Ros	Day	.....	6300
Moreland AX	3900	174	36x5‡	36x10‡	Con L-4	4½x5½	32.4	L	FP	Non	Own	.....	V	Spl	A-L‡	Own	D	Own 23C670	A	5	Pet	Tim 6566	W	F	6.80	40 9	A	Tim 1542B	U.S	Ros	Smi	.....	6535
Moreland AC-Bus	4700	187	36x6*	36x6†	Con L-4	4½x5½	32.4	L	FP	Non	Own	.....	V	Spl	Opt	B-L	D	B-L 51	A	4	Pet	Tim 6516	W	F	6.00	29 0	A	Tim 1550	U.S	Ros	Bud	.....	5660
National T	....	152	36x5‡	36x10‡	Wau CU	4¾x5¾	30.6	L	PC	Wau	Bus	Zen	G	Bos	Non	H-S	O	B-L 51	A	4	Spi	Tim 6566	W	F	8.50	45.5	A	Tim 1544B	Mat	Ros	Van	.....	6200
Netco DHX	3700	170	36x5‡	36x10‡	Con L-4	4½x5½	32.5	L	FP	Pha	Bus	Zen	V	Bos	Wes‡	B-L	D	B-L 55 Max	A	7	M-E	Tim 6560	W	F	8.50	90.7	A	Tim 1542B	Mat	Gem	Smi	Opt	5825
Noble D-52	3500	162	34x4	36x10	Bud ETU	4¼x5½	28.9	L	PC	McC	Chi	Zen	V	Eis	Wes	Ful	D	Ful	A	8	Blo	She W21	W	½	8.75	96.2	A	She 370	Tut	Lav	Bim	Non	5800
Northway C3	3500	161°	36x5	36x10	Own C	4 x6	25.6	H	...	.....	G&O	She	V	Bos	Bos	.....	.....	.....	...	...	...	.....	...	...	.....	.....	...	.....	...	Ros	.....	.....	6060
Patriot X8W	....	156	36x5‡	36x8‡	Hin 200	4½x5½	32.4	L	PC	Non	Own	Str	V	Eis	Non	Cov	D	Cov RAK4	A	4	The	.....	W	F	10.0	.....	A	Shu 5550	Mar	Ros	Bim	.....	5400
Pierce-Arrow XB	3500	150	36x5‡	36x5	Own XB	4 x5½	25.6	T	FP	Own	Own	Str	P	Del	Del	Own	D	Own XB	A	4	Spi	Own XB	W	F	9.25	48.1	A	Own XB	S.P	Own	Bet	Opt	6280
§Rehberger B-1	....	192	36x6*	36x6†	Bud YBU	4½x6	32.4	L	PC	.....	Bus	Str	G	RBo	Bos	B-L	D	B-L 55	U	4	Spi	Tim 6566	W	F	6.00	28.8	...	Shu 5550B	.....	Gem	Bud	.....	6510
§Rehberger B-2	....	192	36x6*	36x6†	Bud BUS	4 x5½	38.4	L	PC	.....	Bus	Str	V	RBo	Bos	B-L	D	B-L 55	U	4	Spi	Tim 6566	W	F	6.00	28.8	...	Shu 5550B	.....	Gem	Bud	.....	6470
Rehberger B	....	162	36x5	36x10	Bud YBU	4½x6	32.4	L	PC	K-P	Bus	Str	G	RBo	Bos‡	B-L	D	B-L 51	A	4	Spi	Tim 6566	W	F	8.5	40.8	A	Tim 1544B	Del	Gem	Van	.....	6460
Republic 19	....	154°	36x5	36x10	Con K4	4½x5¼	27.2	L	FP	Pha	Own	Str	G	Bos	Bos‡	Ful	D	Ful	U	4	Spi	Eat	I	D	8.40	40.3	B	Eat	Mat	Jac	Van	Fir	5200
Republic 19W	....	154°	36x5	36x10	Wau FU	4 x5¾	25.6	L	PC	Wau	Own	Str	G	Bos	Bos‡	Ful	D	Ful	U	4	Spi	Eat	I	D	8.40	40.3	B	Eat	Mat	Jac	Van	Fir	5200
Rowe GSW	4150	143°	34x5	36x10	Wis UAU	4¼x6	28 .9	L	PC	Han	Bus	Zen	V	Bos	Opt‡	B-L	D	B-L 51	U	4	Spi	She W-21	W	½	8.75	31.0	A	She D-370	She	Ros	Hoo	Non	5810
Ruggles 4OHRB	....	115	36x5‡	36x10	Own 40H	4 x5	25.6	L	FC	Non	Per	Zen	G	Bos	Rem‡	B-L	D	B-L 35	U	4	Spi	Wis 88EF	R	F	7.75	42.0	A	Col 8500	She	Jac	Nor	Fir	4700
§Schacht	3800	156	36x5	36x5†	Wis UAU	4¼x6	28 .9	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	P	Own	A	4	Spi	Own	W	F	9.66	46.0	B	Own	She	Own	StM	.....	6700
§Selden Unit 53	....	154	36x4	36x7	Con L-4	4½x5½	32.4	L	FP	Pha	Lon	Str	G	Eis	N-E‡	B-L	D	B-L 51	A	4	Spi	Tim 6566	W	F	8.50	45.4	A	Tim 1544B	Det	Gem	Std	Opt	6220
Sterling EW-20	4490	162	36x5	40x10	Own DU	4½x6¼	32.4	L	PC	Wau	Own	Zen	V	Eis	.....	H-S	P	Own	A	3	Spi	Tim 6666	W	F	8.7	39.2	...	Tim 1632B	Mat	Ros	Hoo	.....	7775
Sterling EW-19-D	4490	148	36x5	40x10	Own DU	4½x6¼	32.4	L	PC	Wau	Own	Zen	V	Eis	.....	H-S	P	Own	A	3	Spi	Tim 6666	W	F	8.7	39.2	...	Tim 1632B	Mat	Ros	Hoo	.....	7775
Stoughton F	....	156	36x5	36x5†	Own	4½x5¼	....	L	FP	Sim	Own	Zen	G	Eis	.....	B-L	...	B-L50	U	4	The	She W21	W	½	8.75	46.8	...	She D370	Own	Ros	Bim	Gdy	5900
Super Truck 60-D	....	126	36x6*	42x9*	Wis UAU	4¼x6	28.9	L	PC	Pha	Chi	Zen	G	Spl	Non	Ful	D	Ful GU-8	U	4	Spi	She D-310	R	½	8.63	.....	A	Wis 120-E	Mat	Ros	Cla	Gdy	.....
Traffic 6000	2145	135	36x4‡	36x7‡	Con N-4	3¾x5	22.5	L	PS	.....	Own	Car	G	Bos	Bos‡	Cov	D	Cov MUN	U	3	D	Rus 60001	I	D	8.80	32.2	A	Own	Det	Own	Opt	Fir	3900
Traylor D	3300	150	36x4‡	36x8‡	Bud HTU	4¼x5½	28.9	L	PC	Pie	G&O	Zen	G	Spl	Wes†	M-E	D	Own D-4-U	U	4	M-E	She W-21	W	½	7.75	37.0	A	She D-343	Mer	Ros	Sch	.....	5850
United 60	....	156	36x5	36x10	Her OX	4 x5	25.6	L	PC	Non	Per	Str	G	Bos	Non	B-L	D	B-L 35	U	4	Blo	Wis 88E	R	½	8.66	46.3	A	Shu 510	Det	Lav	Van	.....	4630
U.S. R	....	156	36x4‡	36x4‡	Hin 400	4 x5¼	25.6	L	PC	Hin	Lon	Str	V	Spl	Bos‡	B-L	D	BL- 51	A	4	Blo	She W-21	W	½	8.70	46.5	A	Shu 510	She	Ros	Sch	.....	5500
Winther 54	3500	152	36x5	36x8	WisUAU	4¼x6	28.9	L	FP	Pie	Own	Str	V	Bos	Bos	B&B	D	B-L51	A	4	Pet	Cla	I	...	9.00	48.0	A	Tim	Mat	Ros	Own	.....	5700
Winther 454	3800	152	36x5	36x5†	Wis UAU	4¼x6	28.9	L	FP	Pie	Own	Str	V	Bos	Bos	B&B	D	B-L51	A	4	Pet	Cla	I	...	9.00	48.0	B	Own	Mat	Ros	Own	.....	6400
Witt-Will 8S	3225	Opt	36x4‡	36x10	Con K-4	4½x5¼	27.2	L	FP	Pie	Own	Zen	V	Eis	Non	B-L	D	B-L 51	U	4	Spi	Tim 6560	W	F	9.25	40.0	A	Tim 1544	She	Ros	Arc	Fir	5500

3½ Ton

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For full name and address of manufacturer and information regarding complete line see page 51

Trade Name and Model	General: Chassis Price	General: Standard Wheelbase (inches)	General: Tire Size §§ Front (inches)	General: Tire Size §§ Rear (inches)	Engine: Make and Model	Engine: Bore and Stroke (inches)	Engine: N.A.C.C. Rated H.P.	Engine: Valve Arrangement	Engine: Oiling System	Engine: Governor (Make)	Engine: Radiator (Make)	Engine: Fuel System Carburetor (Make)	Engine: Fuel System Fuel Feed	Electrical System: Ignition System (Make)	Electrical System: Generator and Starter (Make)	Clutch: Make	Clutch: Type	Gearset: Make and Model	Gearset: Location	Gearset: No. of Forward Speeds	Universals (Make)	Rear Axle: Make and Model	Rear Axle: Final Drive	Rear Axle: Type	Gear Ratios: Total Reduction in High	Gear Ratios: Total Reduction in Low	Brakes, Location	Front Axle Make and Model	Springs (Make)	Steering Gear (Make)	Wheels (Make)	Rims (Make)	Chassis Weight (lbs.) (stripped)
4 Ton—con'd																																	
Rowe HW	4500	157½°	36x5	36x12	Wis VAU	4½x6	32.4	L	PC	Han	Bus	Zen	G	Bos	Opt†	B-L	D	B-L 55	U	4	Spi	She W-32	W	½	10.2	35.0	A	She 4FA20	She	Ros	Hoo	Non	7350
Schacht	4400	168	36x5	40x6†	Wis VAU	4½x6	32.4	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	P	Own	A	8	Spi	Own	W	F	11.6	55.4	B	Own	She	Own	StM	Non	7800
Selden 73	....	168	36x5‡	36x10‡	Con B-5	4¾x6	36.1	L	FP	Pha	Lon	Str	G	Eis	N-E	B-L	D	B-L 55	A	4	Spi	Tim 6666	W	F	8.75	46.8	A	Tim 1630B	S.P	Gem	Std	.....	7720
Union H	3950	174	36x6	36x10	Wis VAU	4½x6	32.4	L	PC	Dup	G&O	She	G	Eis	L-N	Ful	D	Ful H	U	4	U-P	Tor E-1	I	G	10.2	49.2	B	Shu 650	Mat	Jac	Smi	Gdy	7700
Union HW	4500	174	36x6	40x12	Wis VAU	4½x6	32.4	L	PC	Dup	G&O	She	G	Eis	L-N	Ful	D	Ful HUI	A	4	U-P	Wal 5A	R	F	10.5	63.0	A	Shu 650	Mat	Jac	Smi	Gdy	7750
U. S. S.	....	168	36x5	36x5†	Hin 200	4½x5½	32.4	L	PC	Hin	Lon	Str	V	Spl	Bos†	B-L	D	B-L 55	A	4	Blo	She W-32	W	½	10.2	54.8	A	She 4FA20	She	Lav	Sch	Non	7100
Witt-Will A	4500	172	36x6	40x6†	Con B5	4¾x6	36.1	L	FC	Pie	Own	Zen	G	Eis	Wes	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	10.2	53.3	A	Tim 1732B	She	Ros	Smi	Non	9500
5 Ton																																	
Amer. LaFrance V	5500	Opt	36x6	40x6	Own 5R	4¾x6	36.1	L	PS	Own	Bus	Zen	V	Spl	Bos†	Own	D	Own 5R	A	4	Own	Own 5R	W	F	10.0	54.5	B	Own 5R	Mer	.....	Day	Non	9600
Atterbury 24E	5500	174	36x6	40x7†	Con B-7	5 x6	40.1	L	FP	Pie	Own	Zen	V	Bos	Bos	B-L	D	B-L 60 Max	A	7	Spi	Tim 6760	W	F	11.6	110.7	A	Tim 1732B	S.P	Gem	Std	Non	9500
Atterbury 24E-LWB	5650	204	36x6	40x7†	Con B-7	5 x6	40.1	L	FP	Pie	Own	Zen	V	Bos	Bos	B-L	D	B-L 60 Max	A	7	Spi	Tim 6760	W	F	11.6	110.7	A	Tim 1732B	S.P	Gem	Std	Non	9900
Autocar L	....	156	34x6	36x14	Own Y	4¼x5½	28.9	L	SP	Pha	Own	Str	G	Bos	L-N†	Own	P	Own B	A	4	Spi	Own Y	R	F	9.89	72.1	A	Own Y	Del	Ros	Hoo	Non	7400
Autocar M	....	120	34x6	36x14	Own Y	4¼x5½	28.9	L	SP	Pha	Own	Str	G	Bos	L-N‡	Own	P	Own B	A	4	Spi	Own Y	R	F	9.89	72.1	A	Own Y	Del	Ros	Hoo	Non	7200
Available H5	....	190	36x6	40x12	Her T-3	5 x6	40.0	L	FP	Pie	Chi	Str	V	Bos	Bos†	B-L	D	B-L 60	A	4	M-E	Tim 6760	W	F	11.3	60.6	A	Tim 1730	Tut	Ros	Smi	Non	9500
Biederman	....	180°	36x7	36x7	Con 6B	3¾x5	33.7	L	PC	Han	Own	Zen	G	Del	Del	B-L	D	B-L 60	U	7	Spi	Tim	W	F	11.5	60.6	A	Shu	Mat	Ros	Day	Non	9200
Brockway T	....	174	36x6	40x14	Con B-7	5 x6	52.5	L	FP	Pha	Bus	Zen	V	Eis	L-N	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	10.33	.....	A	Tim 1732	She	Ros	Day	Non	9800
Brockway T15	....	176¾	36x6	40x14	Con B-7	5 x6	52.5	L	FP	Pha	Bus	Zen	V	Eis	L-N	B-L	D	B-L 60	A	7	Spi	Tim 6760	W	F	10.33	.....	A	Tim 1732	She	Ros	Day	Non	9800
§Chicago 50	....	163	36x6	40x6†	Her MU-3	4½x5½	32.4	L	FP	Sim	Bre	Zen	G	Bos	Non	B-L	D	B-L 55	A	4	Pet	Tim	R	F	10 3	63.1	A	Tim 1732B	Mat	Gem	Opt	Non	8500
Clinton 120L	5140	204	36x6‡	36x7†	Bud BTU	5 x6½	40.0	L	PC	K.P.	Own	Zen	G	.....	Bos	B-L	D	B-L 60	A	4	M-E	Tim 6760	W	F	8.80	47.1	A	Tim 1732B	Per	Ros	StM	.....	9400
Clinton 120LM	5250	204	36x6	36x7†	Bud BTU	5 x6½	40.0	L	PC	K.P.	Own	Zen	G	.....	Bos	B-L	D	B-L 60 Max	A	7	M-E	Tim 6760	W	F	8.80	83.6	A	Tim 1732B	Per	Ros	StM	.....	9400
Clydesdale 2	....	177	36x6	40x6†	Con B-5	4¾x6	36.1	L	FP	Own	Own	Zen	V	Bos	Bos‡	B-L	D	B-L 60 Max	A	7	Spi	Tim 6760	W	F	11.6	110.8	A	Tim 1732B	Per	Ros	Smi	Non	9000
Corbitt AA	4950	178	36x6	40x6†	Con B7	5 x6	40.0	L	FP	Sim	McC	Str	V	Eis	Bos‡	B-L	D	B-L 60 Max	A	7	Spi	She W-51	W	½	13 0	96.0	A	She 4FA20	She	Ros	Smi	Non	9410
Day-Elder L	....	170	36x6	36x7†	Bud BTU	5 x6½	40.0	L	PC	Mon	Bus	Zen	V	Eis	Bos‡	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	10.2	54.8	A	Tim 1732B	She	Gem	Van	Fir	9200
Denby 210	....	170	36x6	40x6	Con B5	4¾x6	36.1	L	PC	.....	Lon	Zen	G	Eis	.....	Ful	D	Ful	A	4	U-P	Cla	I	D	12.5	62.7	...	Tim	Det	Ros	Smi	....	8590
Diamond T S	....	180	36x6	40x6†	Hin Class B	4¾x6	36.1	L	PC	Own	G&O	Str	V	Bos	Opt‡	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	11.6	56.4	A	Tim 1732B	Mat	Gem	.....	Non	8750
Dixon	4490	160	36x5	36x12	Con L-4	4½x5½	32.4	L	FP	Pie	G&O	Zen	G	Bos	Non	Ful	D	Ful HUI	A	8	Spi	Tim 6666	W	F	Opt	Opt	A	Tim 1632B	S.P	Ros	Smi	Non	8100
Federal X-2	....	163	36x6	40x6†	Con B-5	4¾x6	36.1	L	FP	Pha	Own	Zen	V	Eis	Rem†	B&B	P	W-G	A	4	Spi	Tim 6760	W	F	10.2	60.0	A	Tim 1630B	Mat	Gem	.....	Non	8700
Garford 68D	....	162	36x6‡	40x12	Bud BTU	5 x6½	40.0	L	PC	Sim	Own	Str	G	Spl	Wes‡	Own	D	Own 68D	A	4	Spi	Tim 6760	W	F	8.80	.....	A	Tim 1732B	Per	Ros	Smi	Non	9350
§Gary B50	4850	182	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	McC	Chi	Str	V	Eis	Non	B-L	D	B-L	A	4	Spi	Tim 6760	W	F	11.6	56.4	A	Tim 1730	Mar	Ros	Day	Non	9250
G.M.C. K-101A	....	163	36x5	40x12	Own K101	4½x6	32.4	L	FP	Own	McC	Mar	G	Sim	Rem	Own	D	Own 101A	A	7	Own	Tim 6760	W	F	10 0	86.0	A	Tim 1632B	.....	Own	Day	Non	8755
G.M.C. K-101B	....	187	36x5	40x12	Own K101	4½x6	32.4	L	FP	Own	McC	Mer	G	Sim	Rem	Own	D	Own 101B	A	7	Own	Tim 6760	W	F	10 0	86.0	A	Tim 1632B	.....	Own	Day	Non	9120
Gotfredson 100	....	169	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	Sim	McC	Zen	V	Bos	Non	B-L	D	B-L 60	A	7	Spi	Tim 6760	W	F	10.2	54.8	B	Tim 1732B	Det	Gem	Day	Non	12000
Gramm-Berns'n 50-60	....	168	36x6	40x6†	Con 50	4¾x6	36.1	L	PC	Con	Own	Str	G	Eis	N-E	Own	D	Own 50	A	4	Own	She W-51	W	½	10.5	62.0	B	She HFA20	Per	Ros	Smi	Non	9700
Guilder K5-6	5250	170	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	Pie	G&O	Zen	G	Eis	Non	B-L	D	B-L 60	A	4	M-E	Wis	R	½	9.00	.....	B	Shu 650	Mer	Ros	Van	.....	8800
Hahn M	4250	152°	36x5	36x12	Con L4	4½x5½	32.4	L	FP	Pha	Chi	Str	G	Bos	Del	B-L	D	.....	A	4	Spi	Tim 6666	W	...	10.33	.....	A	Tim 1630	Mer	Ros	Opt	Opt	9200
Hahn M2	4750	174°	36x5	40x12	Con B5	4¾x6	36.1	L	FP	Pha	Chi	Str	G	Bos	Del	B-L	D	.....	A	7	Spi	Tim 6666	W	...	8.75	.....	A	Tim 1730	Mer	Ros	Opt	Opt	8300
Indiana 51	....	182	36x6	40x12	Wau EU	5 x6¼	40.0	L	PC	Wau	McC	Str	V	Eis	Rem†	B&B	P	B-L 60	A	4	Spi	She W-52	W	½	10.2	54.8	A	She 4-FA-20	Bea	Who	Smi	.....	9160
Indiana 52	....	182	36x6	40x12	Wau EU	5 x6¼	40.0	L	PC	Wau	McC	Str	V	Eis	Rem†	B&B	P	B-L60	A	7	Spi	She W52	W	½	10.2	96.9	A	She 4FA20	Bea	Who	Smi	.....	9310
International 103	....	160	36x5	40x14	Own	4¼x5	28.9	H	SP	Own	Own	Own	G	RBo	Rem‡	Own	D	Own 103	A	4	Own	Own 103	I	D	11.0	69.9	B	Own 103	She	Own	Own	Non	7580
Kenworth RS	5500	178	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	Pie	Own	Str	V	Bos	Bos	B-L	P	B-L 60	A	7	Spi	She W-51	W	½	8.75	89.0	A	She 4FA-20	Lah	Ros	Smi	.....	9700
King Zeitler	4525	168°	36x7	40x14	Con B5	4¾x6	36.1	L	FP	Pha	Chi	Str	G	Eis	Bos‡	B-L	D	B-L 60	A	4	Pie	Tim 6760	W	F	11.6	62.3	A	Tim 1732 B	Mar	Lav	Bim	Fir	8600
Kissel Goliath	4385	168	36x6	40x14	Bud BTU	5 x6½	40.0	L	PC	Pie	McC	Str	V	Eis	.....	B-L	P	W-G	A	..	Spi	She W32	W	½	11.75	58.6	...	She 3FA20	Mat	Ros	Smi	.....	8500
Kleiber	5300	185	36x6‡	40x14‡	Con B-5	4¾x6	36.1	L	FP	Non	R-T	Str	V	RBo	Non	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	10.3	54.8	A	Tim 1730	Bet	Ros	Smi	.....	10400
Krebs 84	....	183°	36x6‡	40x12‡	Con B5	4¾x6	36.1	L	PC	Pie	Own	Zen	V	Bos	Bos	B-L	D	B-L 60	A	7	Spi	Tim 6666	W	F	10.3	97.8	A	Tim 1632	Mat	Ros	Smi	Fir	7950
Luedinghaus	....	160°	36x6‡	40x6‡	Wau EU	5 x6¼	40.0	L	PC	Non	Own	Zen	G	Spl	Opt‡	B-L	D	B-L 60	A	4	Spi	Tim	W	F	11.6	.....	A	.....	.....	Ros	.....	.....	9500
Maccar G1	....	186	36x6‡	40x6‡	Wis RBU	5 x6	40.0	L	PC	Pie	Own	S-Z	V	Eis	Bos‡	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	F	10.2	54.8	A	Tim 1732B	Row	Ros	Day	.....	8975
Mack AC	5500	156°	36x6	40x6†	Own AC	5 x6	40.0	L	PS	Own	Own	Str	G	Spl	N-E‡	Own	P	Own AC	J	4	Spi	Own AC	C	D	*8.31	53.3*	D	Own AC	Mer	Own	.....	Non	.....
Master 61	....	158	36x5	40x12	Bud YBU	4½x6	32.4	L	PC	Pie	Chi	Zen	V	Eis	Non	Ful	D	Ful	A	4	Spi	Tim 6760	W	F	Opt	Opt	A	Tim 1630	Det	Ros	Smi	Non	8200
Moreland RX	5000	192	36x6	40x7	Con B-5	4¾x6	36.1	L	FP	Con	Own	.....	V	Spl	A-L‡	Own	D	Own 23H	A	5	Pet	Tim 6666	W	F	8.75	52.6	A	Tim 1632B	U.S	Ros	Smi	Non	8180
Nelson & LeMoon G5	....	Opt	36x6	40x6†	Con B-5	4¾x6	36.1	L	FP	Con	Chi	Str	V	Bos	Bos‡	B-L	D	B-L 60	A	4	Own	Tim 6766	W	F	11.6	.....	A	Tim 1730	Tut	Ros	StM	Non	8000
Northway C5	4500	160°	36x6	40x12	Own C	4 x6	25.6	H	PC	.....	G&O	She	G	Bos	Bos	.....	.....	.....	R	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Ros	.....	.....	7260
Ogden G	....	175	36x6	40x12	Con B-5	4¾x6	36.1	L	FP	Con	Chi	Zen	G	Spl	Ves	B-L	D	B-L 60	A	4	M-E	Tim 6766	I	...	10.3	.....	A	Tim 1540B	Tut	Ros	Sm	Non	8600
Oneida E–9	4725	180°	36x6	40x12	Hin 1600	4½x5½	33.5	H	PC	Hin	Mod	Str	V	Apo	Bos	Ful	D	Ful GC	A	4	Pet	Tim 6660	W	F	11.6	70.00	A	Con 1801	Mat	Ros	Smi	Non	9400
Pierce-Arrow RD	5000	162	36x6‡	36x7	Own RD	4½x6¾	32.4	T	FP	Own	Own	Str	G	Del	Del	Own	D	Own RD	A	4	Spi	Own RD	W	F	7.8	40.4	A	Own RD	S.P	Own	Bet	.....	8750
Rowe FW	4850	170°	36x6	40x7	Wis RAU	4¾x6	36.1	L	PC	Sim	Bus	Zen	G	Bos	Opt‡	B-L	D	B-L 60	A	4	Spi	She W51	W	½	10.2	40.7	A	She 5FA30	She	Ros	Smi	.....	9140
Sandow L	....	175	.....	.....	Bud BTU	5 x6½	32.4	L	FP	Mon	Chi	Str	G	Bos	Non	B-L	D	B-L 60	A	4	Spi	Tim 6760	W	½	11.0	46.6	B	Tim 1730	.....	Ros	.....	.....	7800
Sanford W50	....	174	36x6	40x14	Con B-7	5 x6	36.1	L	FP	Pha	R-T	Str	G	Con	Dyn	Ful	P	Ful H-1	A	4	Spi	She 51	W	½	13.25	67.0	A	She 4FA20	She	Ros	Van	Fir	9400
Schacht	4600	168	36x5	40x7†	Wis VAU	4½x6	32.4	L	PC	Dup	Own	Zen	G	Bos	Non	B&B	D	Own	A	8	Spi	Own	W	F	14.0	66.5	B	Own	She	Own	StM	.....	8200
Selden Unit 90	....	164	36x6	40x12	Con B-7	5 x6	40.1	L	FP	Pha	Lon	Str	G	Eis	Non	Det	D	B-L 60	A	4	Spi	Tim 6760	W	F	11.6	62.0	A	Tim 1730B	S.P	Gem	Std	.....	9650
Service 103	....	173	36x6	40x12	Bud YBU-I	4½x6	32.4	L	PC	Non	Own	Str	V	Eis	Rem	B&B	P	B-L 60	A	4	Spi	Tim 6760	W	F	10.25	54.8	A	Tim 1732	She	Ros	Int	.....	9150
Sterling EW22D	4895	148°	36x6	40x12	Own DU	4½x6½	32.4	L	PC	Wau	Own	Zen	V	Eis	.....	H-S	P	B-L 60	A	4	Spi	Tim 6760	W	F	8.8	52.4	...	Tim 1632B	Mat	Ros	Hoo	.....	8675
Sterling EW24D	5195	148°	36x6	40x12	Own EU	5 x6¼	40.6	L	PC	Wau	Own	Zen	V	Eis	.....	H-S	P	B-L 60	A	4	Spi	Tim 6760	W	F	8.8	52.4	...	Tim 1732B	Mat	Ros	Hoo	.....	9175
Super Truck 100	4500	164	40x5	40x6†	Wis RAU	4¾x6	36.1	L	PC	Sim	Chi	Zen	G	Spl	‡Ves†	Ful	D	Ful H	A	4	Spi	She W-51	W	½	10.2	49.2	A	She 4FA20	She	Ros	Smi	Non	8500
Transport 75	....	170	36x5‡	36x12‡	Bud YTU	4½x6	32.4	L	PC	Dup	Mod	Zen	G	Eis	Rem‡	B&B	P	Cot RU	U	4	Blo	Cla 3D	I	D	10.0	52.0	B	Shu 610	Det	Jac	Mot	.....	7600
Traylor F	4700	170	36x6	40x6†	Bud YTU	4½x6	32.4	L	PC	Sim	G&O	Zen	G	Bos	Wes†	B-L	D	B-L 60	A	4	Spi	She W-32	W	½	10.2	55.0	A	She 4FA20	Mer	Ros	Smi	Non	8800
U. S. S. Special	....	168	36x6	40x6†	Hin HA200	4½x5½	32.4	L	PC	Hin	Lon	Str	V	Spl	Bos‡	B-L	D	B-L 55	A	4	Blo	She	W	½	11.7	62.8	A	She 4FA20	She	Lav	Smi	Non	7500
United 100	....	176	36x6	36x12	Her L	4½x5¾	32.4	L	PC	Dup	Per	Zen	G	Bos	Non	B-L	D	B-L 55	A	4	Blo	Wis 1800	R	F	14.1	74.9	A	Shu 610	Det	Lav	Van	.....	8150
Victor 85	3750	160	36x5	36x12	Con L4	4½x5½	32.4	L	FP	Pie	Per	Zen	V	Eis	.....	Ful	D	Ful GU7	U&A	8	Blo	Wis 160B	R	F	10.25	236.0	A	Shu 610	Det	Lav	Smi	.....	7500
Ward LaFrance 5B	....	164	36x6	40x12	Own EU	5 x6½	40.0	L	PC	Own	Own	Str	G	Bos	A-L	B-L	D	B-L Max	A	7	Spi	Tim	W	F	7.8	74.0	A	Tim	Row	Ros	Van	.....	7900
White 45	4500	174	36x6‡	40x6†	Own GR	4½x5¾	28.9	L	FP	Own	Own	Zen	V	.....	.....	Own	D	Own 45	U	4	Own	Own 45	R	F	11.7	48.2	B	Own 45	.....	Own	.....	Non	7930
Wilcox F	4350	162	36x5	40x12	Bud ATU	4¾x6½	36.1	L	PC	Dup	Own	Str	V	Bos	Opt‡	Own	D	Own EA	A	4	Spi	WAL 5A	R	½	10.2	56.5	B	She 5FA30	She	Own	Smi	Non	9000

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DETAILED MOTOR BUS SPECIFICATIONS: This Table Comprises Motor Bus

Line Number	MAKE AND MODEL	GENERAL								ENGINE								ELECTRICAL SYSTEM				NORMAL SPEED	
		Seating Capacity	Chassis Price	Weights			Wheelbase	Tread		Make and Model	Number of Cylinders Bore and Stroke	Rated Horse Power N.A.C.C.	Valve Arrangement	Oiling System	Radiator Make	Fuel System		Ignition System Make	Generator and Starter Make	Battery			
				Chassis Only	Chassis with Body	Recommended Body Allowance		Front	Rear							Carburetor Make	Fuel Feed			Make	Model	Voltage and Amp. Hr. Cap.	High M. P. H.	Low M. P. H.
1	Ace C	30	4850	6500	11500	5000	204	70	80½	Cont 14H	6-4½x5¾	48.6	L	PC	Own	Zen	V	Eis	Rem	USL	3HVX8X	6-110	35	6.0
2	Acme K	30	....	6900	9900	3000	200	58½	74	Cont 6B	6-3¾x5	33.7	L	PC	Own	Zen	V	Eis	Del	Wil	SJRT4	6-111	30	5.7
3	Bridgeport 45	30	3850	5500	....	....	178	60	72	Buda EBU	4-4¼x5½	28.9	L	PC	....	Zen	V	Eis	Bos	Wil	.....	6-120	....	....
4	Brockway EB	18	....	3850	6350	2500	153	58	58	Wisc SU	4-4 x5	25.6	I	FP	G&O	Zen	V	Eis	L-N	Exi	3XE15-1	12-220	42	10.0
5	Brockway EB4	18	....	4000	6400	2500	153	58	58	Wisc 6Y	6-3⅜x5	....	I	FP	G&O	Zen	V	.....	L-N	Exi	3XE15-1	12-220	45	11.0
6	Brockway H	22	....	4975	7975	3000	164	60	65⅞	Cont 6B	6-3¾x5	33.7	L	FP	G&O	Zen	V	Eis	L-N	Exi	3XE15-1	12-220	45	8.5
7	Brockway J	25	....	6585	10585	4000	185	66½	71	Cont 6B	6-3¾x5	33.7	L	FP	G&O	Zen	V	Eis	L-N	Exi	3XE15-1	12-220	3	6.5
8	Clinton 65B	30	4075	5925	8700	2725	184	58½	58½	Buda EBU	4-4¼x5½	28	9	L	PC	Own	Zen	V	.....	Bos	Pol	611SHK	6-90	30	3.0
9	Clinton 65BS	35	4800	6600	9600	3000	220	68	76¾	Buda YBU	4-4½x6	32	4	L	PC	Own	Zen	V	.....	Bos	Pol	611KPC	6-130	35	3.0
10	Commerce 60	25	5000	....	....	....	3000	329	68	Cont 6B	6-3¾x5	33.7	L	PC	Lon	Zen	V	Bos	Bos	Wil	SJRT30	6-153	35	6.0
11	Commerce 65	29	6000	....	....	....	3500	242	68	Cont 14H	6-4½x5¾	48.6	L	PC	Lon	Zen	V	Bos	L-N	Wil	SJRT 30	12-153	35	5.0
12	Day-Elder 20	....	....	5200	7700	2500	168	56	58	Buda KBU	4-4 x5¼	25	6	L	PC	Bus	Zen	V	Eis	Bos	Wil	SJRT6	6-153	35	10.0
13	Day-Elder 25	....	....	5600	8600	3000	180	58	58½	Cont 6B	6-3¾x5	33.7	L	PC	Bus	Zen	V	Eis	Bos	Wil	SJRT6	6-153	35	7.0
14	Day-Elder 30	....	....	7000	11000	4000	196	68½	74	Buda BUS	6-4x5½	38.4	L	PC	Bus	Zen	V	Eis	L-N	Wil	SJRT6	12-153	35	7.0
15	Duplex FB	23	....	5500	....	3000	181	58	72	Buda EBUI	4-4¼x5½	28.9	L	PC	Mod	Zen	V	Eis	Wes	Pol	.....	6-220	35	10.0
16	Fageol Parlor Car	22	5365	6450	10200	....	218	70	76½	HaS 50	4-4¼x5½	28.9	I	PC	Lon	Zen	V	Del	Del	Exi	.....	6-240	35	7.0
17	Fageol Street Car	29	6315	6700	10350	....	230	70	70	HaS 75	6-4¼x5½	43.6	I	PC	Lon	Zen	V	Del	Del	Exi	.....	12-240	35	6.0
18	Federal	25	....	5450	....	2500	190	60	60	Cont 6B	6-3¾x5	33.7	L	PC	Mod	Zen	V	Eis	Rem	Exi	3LXRE	6-185	35	6.0
19	Fifth Ave. J	29	....	5660	8235	2575	172	67⅝	71½	Yell EZ	4-4 x6	25.6	X	PC	Own	Zen	V	Eis	N-E	Wil	STRN27	12-90	30	7.5
20	Fifth Ave. L	55	4800	6850	11230	4380	174¾	67	77½	Yell EZ	4-4 x6	25.6	X	PC	Own	Zen	G	Eis	N-E	Wil	STRN27	12-90	27	5.0
21	Garford 51D	29	....	6500	9900	3400	187	68	80	Buda YBU	4-4½x6	32.4	L	PC	Own	Str	V	Spl	Rem	Wil	STRN6	6-190	35	5.0
22	Garford 726	25	....	5400	8400	3000	168	56	65½	Buda EBU	4-4¼x5½	28.9	L	PC	Own	Str	V	Spl	Rem	Wil	STRN6	6-190	35	5.4
23	Graham Bros. JB	21	1640	3700	.....	....	158	56	56	Dodge	4-3⅞x4½	24.0	L	PS	McC	Ste	V	N-E	N-E	Wil	.....	12-	30	5
24	Graham Bros. XB	17	1515	3555	.....	.....	140	56	56	Dodge	4-3⅞x5½	24.0	L	PS	McC	Ste	V	N-E	N-E	Wil	.....	12-	30	5
25	Guilder 30	30	4500	5600	8800	3600	191	64	70	Bud EBU	4-4¼x5½	28.9	L	FP	G&O	Zen	V	Eis	L-N	Wil	SJRT28	12-104	30	5.0
26	International 33	18	....	....	....	....	150	56	56½	Own 33	4-4¾x5	22.5	I	Sp	.....	Own	G	Bos	Rem	Pol	.....	6-100	19	....
27	International 53	29	....	....	....	....	190	64½	65	Own 53	4-4¼x5	28.9	I	Sp	.....	Own	V	Bos	Rem	Pol	.....	6-200	34	....
28	Kissel	18	4500	5200	7780	2400	202	64½	66	Own 4-36	4-4¼x5½	28.9	L	Sp	Spa	Str	V	Bos	Rem	Wil	SJRT6	6-153	40	....
29	Larrabee X-2	16	1910	3450	4850	1400	155	56	56	Cont 8R	6-3¾x4½	27.3	L	PC	Fed	Zen	V	Bos	Bos	Exi	3XE15	6-80	40	8.0
30	Larrabee XH3	21	3600	4670	7670	3000	186	62	66	Cont 6B	6-3¾x5	33.7	L	PC	Fed	Zen	V	Bos	Bos	Exi	36XRE25	6-240	35	7.0
31	Mack AB	24	4350	....	.....	....	230½	68	63⅜	Own AB	4-4¾x5	28.9	L	PC	Own	Str	V	Spl	N-E	Exi	6LXRE13	12-120	41	10.0
32	Mack AB	25	4250	....	.....	....	196	68	63⅜	Own AB	4-4¾x5	28.9	L	PC	Own	Str	V	Spl	N-E	Exi	6LXRE13	12-120	41	10.0
33	Mason Road King C	..	2150	3900	7400	3500	168	56	56	Her OX	4-4 x5	25.6	L	PC	Fed	Zen	V	A-L	A-L	USL	3HVX8X	6-166	35	7.5
34	Master	30	....	6000	9500	3500	194	59	59	Buda EBU	4-4¼x5½	28.9	L	PC	Chi	Zen	V	Eis	Wes	Wil	.....	12-	25	5.0
35	Menominee T	16	....	4290	6400	2100	194	56	56	Wisc Y	6-3⅝x5	27.3	L	PC	.....	Zen	V	Rem	Rem	Wil	SJRT6	6-153	38	....
36	Menominee DB	25	4400	6020	9100	3200	186	68	73	Wisc TAU	4-4 x6	25.6	L	PC	Own	Zen	V	Eis	Bos	Wil	SJRT6	6-153	32	6.0
37	Moreland RC	16	2280	3850	5850	2000	180	56	57¼	Herc OBX	4-4 x5	25.6	L	PC	Own	Zen	V	Spl	A-L	Hob	6HTXR15A	6-140	25	....
38	Moreland EC	20	3780	4590	7590	3000	178	61	58	Cont K4	4-4½x5¼	27.3	L	FP	Own	Sch	V	Spl	Spl	Hob	6HTXR15A	6-140	25	....
39	Moreland AC	25	4700	5660	9160	3500	187	68	69	Cont L4	4-4½x5½	32.5	L	FP	Own	Sch	V	Spl	Spl	Hob	6HTXR15A	6-140	25	....
40	Pierce-Arrow Z	25	4600	6100	9100	3000	196	68	75⅝	Own	6-4 x5½	38.0	T	FP	Own	Own	P	Del	Del	Wil	SJRN6	6-163	50	3.0
41	Pierce-Arrow Z	30	4750	6200	9700	3500	220	68	75⅝	Own	6-4 x5½	38.0	T	FP	Own	Own	P	Del	Del	Wil	SJRN6	6-163	50	3.0
42	Reo W	25	2525	3860	7360	3500	176	56	57¼	Own W	6-3 1/16x5	24.3	F	PS	Own	Sch	V	N-E	N-E	Wil	SJRT6	6-153	37	10.0
43	Republic 81	15	....	....	.....	2000	185	60	58	Lyc	4-4 x5	25.6	L	PC	Own	Str	V	Bos	Bos	USL	.....	6-109	35	....
44	Ruggles 60	21	....	4500	6300	....	180	56	69½	Wis	6-3⅜x5	27.3	..	....	Per	Zen	V	Rem	Rem	Wil	.....	6-200	45	5.0
45	Ruggles 70	25	....	5500	8800	....	218	69	72	Wis	6-4½x5	48.6	..	....	Per	Zen	V	Rem	Rem	Wil	.....	6-200	45	5.0
46	Safeway Six Wheeler	27	....	....	.....	....	194	....	....	Cont 6B	6-3¾x5	50.0	..	....	....	Str	..	Eis	N-E	Wil	.....	12-152	....	....
47	Schacht	25	5900	....	.....	4000	197°	67½	84¾	Wis Z	6-4½x5	48.6	L	FP	Own	Str	V	RBo	L-N	Alc	AF11	12-175	55	....
48	Selden 52	30	....	7200	10200	3000	195	68	74	Cont L4	4-4¼x5½	32.4	L	FP	Lon	Str	V	Bos	N-E	Pol	615KPN	12-	25	6.2
49	Selden	....	....	7200	10200	3000	195	68	74	Cont 6B	6-3¾x5	33.8	L	PC	Lon	Zen	V	Eis	N-E	Pol	615KPN	12-300	35	6.2
50	Sterling GB2	29	4575	6100	.....	....	198	60¼	58½	Own CU	4-4⅜x5¾	30.6	L	PC	Own	Zen	V	Eis	Bos	Gou	.....	.....	....	....
51	Sterling G84	29	5000	6200	.....	....	198	60¼	58½	Own DU	4-4½x6¼	32.4	L	PC	Own	Zen	V	Eis	Bos	Gou	.....	.....	....	....
52	Sterling GB6	29	5600	6800	.....	....	223	60¼	58½	Own 60	6-4 x5¾	38.4	L	PC	Own	Zen	V	Eis	Bos	Gou	.....	.....	....	....
53	Union GC	30	....	6500	10000	3500	233½	60	60	Cont 6	4-4¾x6	....	..	....	McC	Zen	V	Bos	Bos	Pol	.....	6-170	35	5.0
54	Union EC	19	....	4500	7000	2500	198	58	58	Cont 6	4-3⅞x4½	....	..	....	McC	Zen	V	Bos	Bos	Pol	.....	6-137	40	5.0
55	United	30	.....	....	10000	3000	220	64½	66	Buda	6-4 x5⅛	38.0	L	PC	Own	Str	V	Bos	Bos	Wil	.....	6-220	40	5.0
56	Ward LaFrance 3B	25	4950	6300	9700	3400	196	58	65½	Wau DU	4-4½x6¼	32.4	L	PC	Bus	Str	V	RBo	Rem	Wil	STAT 7	6-177	35	....
57	White 50A	25	4950	5395	.....	....	198	58½	67⅞	Own GR	4-4¼x5¾	28.9	L	PC	.....	Zen	V	.....	L-N	Opt	.....	12-132	....	....
58	Yellow Coach Z	67	....	....	.....	....	192	71	73½	Yell EZ	4-4 x6	25.6	X	PC	....	Zen	V	.....	....	....	.....	....	....	....

°—More Wheelbases Furnished
•—Pneumatic
†—Dual Pneumatic
‡—Solid §—Dual Solid
A-K—Atwater Kent
A-L—Auto-Lite Arc—Archibald
Alc—Cincinnati Storage
B&B—Borg & Beck
Bim—Bimel B-L—Brown-Lipe
Bud—Budd Buda—Buda
Blo—Blood Bos—Bosch
Bus—Bush Cam—Campbell
Cla—Clark Col—Columbia
Cont—Continental
D—Multiple Dry Disk
Day—Dayton
Del—Delco
Dtl—Detlaff
E-D—External Driveshaft
E-R—External Rear Wheel
Eis—Eisemann Exi—Exide
F—Head & Side (Engine)
F—Full Floating
½—½ Floating
Fed—Fedders
Fli—Flint Ful—Fuller
FP—Full Pressure to all Bearings, including wrist pins
G—Gravity
Glo—Globe
Gem—Gemmer G&O—G & O
Gou—Gould Hob—Hobbs
Hink—Hinkley
HaS—Hall Scott
Herc—Hercules
I—In Head
Ig—Internal Gear
I-F—Internal Four Wheels
Ind—Indestructible
I-R—Internal Rear Wheels

ELECTRIC COM

Name and Model Number	Total Weight Resting on Four Tires	Chassis Weight—Exclusive of Battery	Minimum Load Capacity	Maximum Load Capacity	Chassis Price	Maximum Speed	Location of Battery	Mileage Per Charge	Motor	Controller	Speeds Forward	Drive	Rear Axle	Springs	Front Tires	Rear Tires	Steering Gear	Wheelbase	Per Cent of Weight on Rear Wheels
Autocar E 1F	....	.....	.....	.....	2400	.....	.....	.....	G-E	G-E	...	R	Own	Row	34x4	34x5	Ross	107	60
Autocar E 2D	....	.....	.....	.....	2800	.....	.....	.....	G-E	G-E	...	R	Own	Row	34x5	34x6	Ross	120	60
Autocar E 3H	....	.....	.....	.....	3200	.....	.....	.....	G-E	G-E	...	R	Own	Row	34x5	36x8	Ross	128	60
Autocar E 4Y	....	.....	.....	.....	4000	.....	.....	.....	G-E	G-E	...	R	Own	Row	34x6	36x6§	Ross	138	60
Autocar E 5M	....	.....	.....	.....	4300	.....	.....	.....	G-E	G-E	...	R	Own	Row	36x7	36x7§	Ross	138	60
C-T D-1	5400	2200	.....	.....	.....	14	A	55	G-E	Own	4	Own	Flot	Shel	36x3	36x3½	W	100	69
C-T B-1.5	6100	2300	.....	.....	.....	14	A	60	G-E	Own	4	Own	Flot	Shel	36x3	36x4	W	91⅝	65
C-T D-1.5	6200	2300	.....	.....	.....	14	A	60	G-E	Own	4	Own	Flot	Shel	36x3	36x4	W	116	71
C-T B-2	7300	2400	.....	.....	.....	14	A	50	G-E	Own	4	Own	Flot	Shel	36x3½	36x5	W	101	66
C-T D-2	7300	2400	.....	.....	.....	14	A	50	G-E	Own	4	Own	Flot	Shel	36x3½	36x5	W	124	70
C-T B-4	11750	4000	.....	.....	.....	12	A	50	G-E	Own	4	Own	Flot	Shel	36x4	36x4†	W	116	68
C-T C-6	14400	4300	.....	.....	.....	10	A	45	G-E	Own	4	I	D	Shel	36x4	36x4†	W	122	70
C-T C-7	16900	5000	.....	.....	.....	10	A	45	G-E	Own	4	I	D	Shel	36x5	36x5†	W	126	65
C-T A-7	17700	5800	.....	.....	.....	11	A	45	G-E	Own	4	I	D	Shel	36x6	36x4†	W	122	60
C-T A-10	22250	6500	.....	.....	.....	10	A	45	G-E	Own	4	I	D	Shel	36x7	36x5†	W	132	59
Kelland AT	.....	1950	1000	1500	.....	15	S	50	G-E	G-E	4	R	Flot	Mer	34x3	34x3	Ross	102	60
Kelland BT	.....	2050	1500	2000	.....	15	S	50	G-E	G-E	4	R	Flot	Mer	34x3½	34x3½	Ross	102	60
Kelland CT	.....	2150	2000	2500	.....	15	S	50	G-E	G-E	4	R	Flot	Mer	34x3½	34x4	Ross	102	60
Kelland AH	.....	2500	1000	1500	.....	15	A	45	G-E	G-E	4	C	D	Mer	36x3	36x3	Hin	106	60
Kelland BH	.....	2600	1500	2000	.....	15	A	45	G-E	G-E	4	C	D	Mer	36x3½	36x3½	Hin	106	60
Kelland CH	.....	2700	2000	2500	.....	15	A	45	G-E	G-E	4	C	D	Mer	36x3½	36x4	Hin	106	60
Kelland ATS	.....	2200	1000	1500	.....	15	H&S	50	G-E	G-E	4	R	Flot	Mer	34x3	34x3	Ross	102	60
Kelland BTS	.....	2300	1500	2000	.....	15	H&S	50	G-E	G-E	4	R	Flot	Mer	34x3½	34x3½	Ross	102	60
Kelland CTS	.....	2400	2000	2500	.....	15	H&S	50	G-E	G-E	4	R	Flot	Mer	34x3½	34x4	Ross	114	60
Lansden Century	.....	1700	.....	1250	1600	15	S	60	G-E	Own	4	R	Flot	SP	32x4½	32x4½	Ross	108	50
Lansden Century	.....	1950	.....	2000	1850	15	S	60	G-E	Own	4	R	Flot	SP	33x5	33x5	Ross	112	50
Lansden Marathon	.....	2900	.....	2000	1850	14	A	50	G-E	Own	4	C	D	SP	36x3½	36x4	Bay	108	60

Chassis Which Are Designed and Sold Exclusively for Passenger Transportation

Line Number	TRANSMISSION: Clutch Type and Make	Gearset Make and Model	Gearset Location	Gearset Number of Forward Speeds	Universal Make	REAR AXLE: Make and Model	Final Drive	Type	Gear Ratio Total in High	Gear Ratio Total in Low	Service Brake Type & Location	Front Axle Make and Model	Steering Gear Make	TIRES AND WHEELS: Tires (in.) Front	Tires (in.) Rear	Wheels—Make	Rims—Make	DIMENSIONS (In.): Floor Height	Turning Radius	Overall Length	Overall Width	Clearance from Ground
1	D. B. L.	B. L. 55	U	4	U-M	Tim 6516	Wo	F	5.4	26.6	I-R	Tim 1550	Ros	36x6	38x7	Day	Fir	27½	34	316	90	9¼
2	P. B. & B.	Cot RU	U	4	Blo	Tim 6511	Wo	F	6.8	35.3	I-R	Tim 1540B	Ros	36x6*	36x6†	Bud	Fir	27	38	312	90	5
3	D. B. L.	B. L. 50	U	4	Spi	Tim 6560	Wo	F	6.7	.....	I-R	She Spec	Ros	36x6*	36x6†	Bud	.....	31½	.....	.....	.....	.....
4	D. B. L.	B. L. 30	U	3	Spi	Col 53000	B	¾	5.1	.....	E-R	Col 5200	Gem	32x6	32x6	Van	Fir	28½	28	243	64	9
5	D. B. L.	B. L. 30	U	3	Spi	Col 53000	B	¾	5.1	.....	E-R	Col 5200	Gem	32x6	32x6	Van	Fir	28½	28	243	64	9
6	D. B. L.	B. L. 50	U	3	Spi	Tim 5816	B	½	5.8	.....	.....	Shu 5550	Ros	33x5	33x5†	Bud	Fir	.....	30	256	74	8½
7	D. B. L.	B. L. 55	U	4	Spi	Cla 3D	Ig	D	7.0	.....	.....	Shu 610B	Ros	36x6	36x6†	Bud	Fir	27½	32	295¼	90	7½
8	D. B. L.	B. L. 55	S	4	M-E	Tim 3566	Wo	F	6.5	34.8	I-R	Tim1544B	Ros	36x6*	36x6†	Bud	Fir	30	37	270	75½	9½
9	D. B. L.	B. L. 55	S	4	M-E	Tim 6516	Wo	F	6.7	36.1	I-R	Tim 1550	Ros	36x6	36x6†	Bud	Fir	26	40	286	90	7
10	B. L. 70	B. L. 60H	A	4	Blo	Tim 6516	Wo	F	6.8	27.2	I-R	Tim 1550	Ros	36x6	36x6†	MM	Fir	20½	.....	307	88⅞	7
11	B. L. 70	B. L. 60H	A	4	Blo	Tim 6516	Wo	F	5.4	21.6	I-R	Tim 1550	Ros	36x6	36x6†	MM	Fir	20½	.....	320	88⅞	7
12	D. B. L.	B. L. 35	U	3	Spi	Tim 6462	Wo	½	6.5	21.8	I-R	Tim 1526	Gem	36x6*	38x7*	Van	Fir	32	30	246½	70½	11
13	D. B. L.	B. L. 51	U	4	Spi	Tim 6566	Wo	F	6.7	36.1	I-R	Tim 1544	Gem	36x6*	40x8*	Bud	Fir	32	30	260	75½	12
14	D. B. L.	B. L. 51	U	4	Spi	Huck 85	R	F	5.7	30.6	I-R	She D 445	Gem	36x6*	36x6*	Bud	Fir	25	27	293	90	10½
15	D. B. L.	B. L.	U	4	Pet	Vul 4	Wo	F	6.5	32.1	I-R	Shu	Ros	34x5	34x5†	Mot	Fir	27	28	268	82	9
16	D. B. L.	B. L. 50	U	4	Spi	Tim 6466	Wo	F	4.6	19.7	I-R	Tim 1524	Ros	36x6*	36x6†	Bud	.....	19¾	38	312	89	7½
17	D. B. L.	B. L. 55	U	4	Spi	Tim 6466	Wo	F	4.6	19.7	I-R	Tim 4550	Ros	36x6	38x7	Bud	.....	20¾	38½	324	89	7½
18	P. B. & B.	Det R400	S	4	Spi	Tim 6566	Wo	F	6.7	39.8	.....	Own	Gem	36x6*	36x8*	Smi	Fir	30	28	266⅜	.....	10
19	P. Own	Own J	S	4	Sne	Tim 6412	Wo	½	5.4	21.6	I-R	Tim 1523	Ros	34x5	34x7	Own	.....	29½	33	277	87½	7
20	P. Own	Own L	S	4	Sne	Own L	Ig	F	6.6	.....	E-D	Own L	Ros	36x5‡	36x5§	Own	.....	25	33	296	90	6
21	D. Own	Own 51D	S&U	8	Spi	Tim 6511G	Wo	F	5.4	26.1	I-R	Tim 1550	Ros	36x6*	36x6†	.....	Fir	28¼	30	295	91	7
22	D. Own	Own 726	S	4	Spi	Tim 6560	Wo	F	5.4	21.6	I-R	Own	Ros	32x6*	32x6†	Bud	Fir	32	30	236	78½	7½
23	D. Dodge	Dodge	U	3	UP	Own	SP	½	6.3	26.3	-R	Eat	Dodge	32x6	32x6	Smi	Fir	26	29½	242	66	8
24	D. Dodge	Dodge	U	3	UP	Own	SP	½	6.3	26.3	-R	Eat	Dodge	32x6	32x6	Smi	Fir	26	26	206	66	8
25	D. B. L.	B. L. 51	U	4	M-E	Wis 68C	R	...	5.8	.....	E-D	Shu 5550B	Ros	36x6	36x6†	Bud	.....	26	70	300	83	11
26	D. Own	Own 33	U	3	Own	Own 33	Ig	F	.....	.....	I-R	.....	Own	36x4	36x6	Own	.....	.....	.....	.....	.....	.....
27	D. Own	Own 53	U	4	Own	Own 53	Ig	F	.....	.....	I-F	.....	Own	36x6*	36x6†	Bud	.....	34½	.....	.....	.....	.....
28	D. B. L.	B. L. 35	U	4	Spi	Wis 60B	R	...	5.8	19.0	-R	Shu 610	Ros	34x7*	34x7*	Whi	Gdy	24	.....	252	76	8
29	D. B. L.	B. L. 31	U	3	Sne	Sal D	Be	¾	7.7	27.6	E-R	Sal	Gem	34x5	34x5	Ind	Fir	29	27	220	70	11
30	D. B. L.	B. L. 31	U	3	Spi	She	W	¾	5.5	26.4	I-R	Shu5550B	Ros	32x6	32x6†	Bud	.....	25	28	262	86	9
31	D. Own	Own AB	U	4	Spi	Own AB	R	F	6.7	21.5	I-R	Own AB	Own	36x6*	36x6*	Bud	.....	28¾	32½	310	84	10½
32	D. Own	Own AB	U	4	Spi	Own AB	R	F	6.7	21.5	I-R	Own AB	Own	32x6*	32x6*	Bud	.....	24¾	28¼	304	88	8¾
33	B&B	Cam	A	3	U-M	Fli	SP	½	5.3	21.5	E-R	Fli	Lav	30x5	30x5†	Bud	Fir	24	27	244½	75	7½
34	D. Ful	Ful GU7	U	4	Spi	Wal 25A	R	F	7.6	37.0	-R	Shu 610	Ros	36x6	40x8	St M	Fir	26	33½	.....	.....	.....
35	D. Det	Cot AAU	U	3	Spi	Wis 40R60	R	½	.....	.....	I-R	.....	Ros	32x6*	32x6†	Ind	.....	23½	28	.....	.....	10
36	D-Det	Cot AU	U	4	Spi	Wis 120K	R	½	6.1	32.0	I-R	Tim 1550	Ros	36x6*	36x6†	Ind	Fir	26	30	256	86	10
37	D. B. L.	B. L. 30	U	3	Pet	Tim 5512	Wo	½	5.5	22.0	E-R	Tim 1250	Ros	32x6	32x6	Own	Gdy	23½	.....	.....	.....	7
38	D. B. L.	B. L. 51	U	4	Pet	Tim 6410	Wo	½	6.0	32.1	I-R	Tim 1550	Ros	34x5*	34x5†	Bud	.....	24½	.....	.....	.....	8½
39	D. B. L.	B. L. 51	U	4	Pet	Tim 6511	Wo	F	6.0	32.1	I-R	Tim 1550	Ros	36x6*	36x6†	Bud	.....	25½	.....	.....	.....	9
40	Own	Own W	A	4	Spi	Own W	Wo	F	6.0	32.0	E-D	Own	Own	36x5‡	36x5‡	Day	.....	28	37½	282	89	8
41	Own	Own W	A	4	Spi	Own W	Wo	F	6.0	32.0	E-D	Own	Own	36x5‡	36x5	Day	.....	28	40	303	89	8
42	Own	Own W	S	3	Own	Own W	SP	½	5.7	21.0	E-R	Own W	Own	32x6	32x6†	Bud	.....	26¼	31	197	87	9
43	Ful	Ful	U	3	Spi	Eat	Ig	D	6.2	25.0	E-D	Eat	Jac	34x7	34x7	Van	Fir	21	.....	270½	67¼	7½
44	D. B. L.	B. L. 4	U	4	.....	Col FF	B	F	.....	.....	.....	Col	Jac	30x5	30x5	Bud	.....	.....	.....	.....	.....	.....
45	D. B. L.	B. L. 4	U	4	.....	Wis FF	R	F	.....	.....	.....	She	Jac	32x6	32x6	Bud	.....	.....	.....	.....	.....	.....
46	B-L	B-L	U	....	Blo	Tim 6212	Wo	...	.....	.....	I-R	Tim 1550	Ros	32x6*	32x6*	Bud	.....	.....	.....	.....	.....	.....
47	D. Ful	Own	A	8	Blo	Wis	R	F	6.0	30.0	I-F	Shu	Ros	36x6*	36x6†	Bud	Fir	24½	33½	.....	91¼	7½
48	D. B. L.	B. L.	S	4	Spi	Tim	Wo	F	7.7	31.0	I-R	Tim	Gem	36x5	36x5	Arc	Fir	29⅛	33	309	91	7
49	D. B. L.	B. L.	S	4	Spi	Tim	Wo	F	7.7	31.0	-R	Tim	Gem	36x5	36x5	Arc	Fir	29⅛	33	309	91	7
50	D. B. L.	B. L. 50	U	4	Spi	Tim 6566	Wo	F	5.4	34.7	.....	Tim 1554B	Ros	36x6*	36x6†	Bud	.....	.....	.....	287	.....	.....
51	D. B. L.	B. L. 55	U	4	Spi	Tim 6566	Wo	F	5.4	34.7	.....	Tim 1544B	Ros	36x6*	36x6†	Bud	.....	.....	.....	287	.....	.....
52	D. B. L.	B. L. 55	U	4	Spi	Tim 6566	Wo	F	5.4	34.7	.....	Tim 1444B	Ros	36x6*	36x6†	Bud	.....	.....	.....	318	.....	.....
53	Ful	Ful 4	....	....	.....	Wis SF	R	...	.....	.....	.....	Tim	Jax	32x6	32x6†	Bud	.....	.....	.....	.....	.....	.....
54	Ful	Ful 4	....	....	.....	Cla SF	SP	...	.....	.....	.....	Shu	Jax	34x7	34x7	.....	.....	.....	.....	.....	.....	.....
55	D. B. L.	B. L. 35	U	4	Blo	Wis 66C	R	½	5.8	.....	I-R	Shu 610	Ros	36x8	36x8	Whi	Fir	25	.....	265½	84	7½
56	D. B. L.	B. L. 55	A	4	Spi	Tim 6566	Wo	F	6.0	32.1	I-R	Col	Ros	36x6*	36x6†	Bud	Fir	28	36	304	75½	9½
57	Own	Own 50A	U	4	Spi	Own 50A	R	½	4.6	19.3	E-D	Own 50A	Own	32x6	32x6†	Bud	Fir	28¾	36	274¾	81⅜	7
58	P. Own	Own 2	S	4	.....	Own Z	Wo	½	6.2		I-F		Own	34x5†	34x5§							

Joh—Johnson Kel—Kells
L—L-Head Lav—Lavine
L-N—Leece-Neville Lon—Long
M&E—Merchant & Evans
McC—McCord
Mot—Motor Wheel Corp.
N-E—North-East
NP—No Provision
Opt—Optional
P—Single Plate Pet—Peters

PC—Pressure to all Crankshaft & connecting Rod Bearings—Splash to other parts
Pol—Prest-O-Lite
R—Double Reduction
Ros—Ross
Rem——Remy
R&V—R & V Knight
Sal—Salisbury Sew—Sewell
Sne—Snead SP—Spiral Bevel

S—Separate Unit Spi—Spicer
She—Sheldon Spa—Sparton
StM—St. Marys
Shu—Shuler
Ste—Stewart
Str—Stromberg
Sp—Splash
Tim—Timken
U—Unit with Engine
U. P.—Universal

Van—Van Motor Wheels
V—Vacuum
Wal—Walker
Whi——Whitcomb
Wes—Westinghouse
Wil—Willard Wisc—Wisconsin
Wis—Wisconsin Wo—Worm
X—Sleeve Valve
Yel—Yellow Zen—Zenith
a—Other ratios optional

MERCIAL CARS

Name and Model Number	Total Weight Resting on Four Tires	Chassis Weight Exclusive of Battery	Minimum Load Capacity	Maximum Load Capacity	Chassis Price	Maximum Speed	Location of Battery	Mileage Per Charge	Motor	Controller	Speeds Forward	Drive	Rear Axle	Springs	Front Tires	Rear Tires	Steering Gear	Wheelbase	Per Cent of Weight on Rear Wheels
Lansden Marathon	.....	4400	.....	4000	2250	13	A	50	G-E	Own	4	C	D	SP	36x4	36x3½†	Bay	120	60
Lansden Marathon	.....	5700	.....	7000	2950	11	A	45	G-E	Own	4	C	D	SP	36x5	36x5†	Bay	133	60
Lansden Marathon	.....	7500	.....	10000	3350	10	A	40	G-E	Own	4	C	D	SP	36x6	36x6†	Bay	146	60
O. B-B	.....	.....	.....	.....	.....	13	.....	.....	G-E	Own	...	C	D	.....	36x4	36x3½†	Own	107	.....
O. B-C	.....	.....	.....	.....	.....	11	.....	.....	G-E	Own	...	C	D	.....	36x5	36x4 †	Own	135	.....
O. B-D	.....	.....	.....	.....	.....	10	.....	.....	G-E	Own	...	C	D	.....	36x6	36x5 †	Own	143	.....
Steinmetz 15	6800	2300	1000	2250	1850	18	H&S	45	Own	Own	4	R	Own	Lig	32x4½*	32x4½*	Lav	114	55
Walker 12	.....	1900	.....	1000	.....	15	H&S	50	G-E	Own	4	.....	Tim	Det	32x3	32x3½	Ross	104	66
Walker 15	.....	2800	.....	1500	.....	14	A	50	West	West	5	Own	Own	Math	34x3	36x3½	Ross	94	66
Walker 22	.....	3000	.....	2000	.....	13	A	50	West	West	5	Own	Own	Math	34x3½	36x4	Ross	101	66
Walker 42	.....	4200	.....	4000	.....	13	A	50	West	West	5	Own	Own	Math	36x4	36x6	Ross	114	66
Walker P	.....	6000	.....	7000	.....	11	A	40	West	West	5	Own	Own	Math	36x5	38x5†	Ross	131	66
Walker N	.....	6700	.....	10000	.....	10	A	40	West	West	5	Own	Own	Math	36x6	38x6†	Ross	141	66
Walter HD	6800	2300	.....	2000	2200	16	A	60	Diehl	G-E	5	B	.....	.....	32x3½	32x4	Ross	98	60
Walter EN	13200	4400	.....	5000	3100	15	A	50	G-E	G-E	5	Own	D	.....	36x4	36x7	Gem	114	60
Walter EL	16800	5000	.....	7000	3700	13½	A	50	G-E	G-E	5	Own	D	.....	36x5	36x4	Gem	132	60
Walter ES	23600	7200	.....	11000	4500	12	A	50	G-E	G-E	5	Own	D	.....	36x6	40x6	Ross	150	70
Walter ER	28400	7500	.....	15000	4800	11	A	50	G-E	G-E	5	Own	D	.....	36x7	40x7	Ross	150	70
Ward A211	4500	1650	550	1150	.....	15	S	75	G-E	Own	4	W	Shel	Shel	32x4*	33x4½*	Own	88	56
Ward B-222	6000	2300	1010	1700	.....	14	S	84	G-E	Own	4	W	Shel	Shel	32x3½	32x4	Own	91	62
Ward C-211	8000	2670	2170	2880	.....	13	S	65	G-E	Own	4	W	Shel	Shel	32x3½	34x5	Own	96	64
Ward E-211	12000	3570	4480	5430	.....	12½	S	56½	G-E	Own	4	W	Shel	Shel	34x4	36x6	Own	108	65
Ward G-211	16000	4500	6560	7760	.....	11	S	44	G-E	Own	5	W	Shel	Shel	36x5	36x8	Own	120	68
Ward J-211	22500	6630	8580	11200	.....	10	S	39½	G-E	Own	5	W	Shel	Shel	36x6	36x10	Own	136	70
Ward M-211	30000	8430	13780	15920	.....	9	S	36	G-E	Own	5	W	Shel	Shel	36x7	36x7	Own	152	71

NOTE: Battery Equipment on all above makes is at the option of the purchaser. Battery Location Abbreviations: A-amidships; H-under hood; and S-under seat

KEY OF ABBREVIATIONS

Wheelbase:
°—More than one wheelbase furnished.

Tires:
§§—Unless marked otherwise all tires are solids.
•—Pneumatics standard equipment.
‡—Pneumatics at Extra Cost.
†—Dual on Rear.

Engine:
Bud—Buda Co., Harvey, Ill.
Con—Continental M. Corp., Detroit, Mich.
D—Head & Side
GBS—Golden, Belknap & Swartz Co., Detroit, Mich.
H—Overhead.
Her—Hercules M. Mfg. Co., Canton, Ohio.
Hin—Hinkley Motors, Inc., Detroit, Mich.
H-S—Herschell-Spillman Motor Co., North Tonawanda, N. Y.
H-C—Holl Scott Motor Co., Berkeley, Cal.
L—L-Head.
Lyc—Lycoming M. Corp., Williamsport, Pa.
Mid—Midwest Eng. Co., Indianapolis, Ind.
FP—Full Pressure to all bearings including wrist pins.
PC—Pressure to all crankshaft and connecting rod bearings.
PS—Pressure with splash.
SP—Circulating splash.
T—T-Head.
Wau—Waukesha M. Co., Waukesha, Wis.
Wis—Wisconsin M. Mfg. Co., Milwaukee, Wis.
Yell—Yellow Sleeve Valve Eng. Works, East Moline, Ill.
X—Sleeve.

Governor:
Con—Continental M. Corp., Detroit, Mich.
Dup—Duplex Eng. Gov. Co., Brooklyn, N. Y.
Han—Handy Gov. Co., Detroit, Mich.
Hin—Hinkley Motors, Inc., Detroit, Mich.
K. P.—K. P. Products Co., New York, N. Y.
McK—E. R. Klemm, Chicago, Ill.
Mon—Monarch Gov. Co., Detroit, Mich.
Non—Not Supplied.
Pha—Pharo Mfg. Co., Detroit, Mich.
Pie—Pierce Governor Co., Anderson, Ind.
Sim—Duplex Eng. Gov. Co., Brooklyn, N. Y.
Wau—Waukesha M. Co., Waukesha, Wis.

Radiator:
Bre—Bremer-Tully Mfg. Co., Chicago, Ill.
Bus—Bush Mfg. Co., Hartford, Conn.
Cor—Corcoran Mfg. Co., Cincinnati, Ohio.
Chic—Chicago Mfg. Co., Chicago, Ill.
E&M—English & Mersick Co., New Haven, Conn.
Fed—Fedders Mfg. Co., Buffalo, N. Y.
Fle—Flexo Mfg. Co., Los Angeles, Cal.
G&O—G. & O. Mfg. Co., New Haven, Conn.
Har—Harrison Rad. Corp., Lockport, N. Y.
Idl—Ideal Sheet Metal Works, Chicago, Ill.
Lon—Long Mfg. Co., Detroit, Mich.
McC—McCord Rad. & Mfg. Co., Detroit, Mich.
McK—McKinnon Dash Co., Buffalo, N. Y.
Per—Racine Radiator Co., Racine, Wis.
R-T—Rome-Turney Rad. Co., Rome, N. Y.
S-J—Shotwell-Johnson Co., Minneapolis, Minn.
Spl—Splitdorf Electrical Co., Newark, N. J.
Stn—Standard Radiator Co., Inc., Springville, N. Y.
US—U. S. Cartridge Co., Lowell, Mass.
Whe—Wheeler Rad. & Mfg. Co., E. Cleveland, Ohio.

Fuel System:
Car—Carter Carburetor Co., St. Louis, Mo.
Ens—Ensign Car. Co., Los Angeles, Cal.
G—Gravity.
Hol—Holley Carburetor Co., St. Louis, Mo.
Joh—Johnson Co., Detroit, Mich.
Mar—Marvel Carburetor Co., Flint, Mich.
P—Pressure.
Ray—Beneke & Kropf Mfg. Co., Chicago, Ill.
Sco—Briscoe Devices Corp., Pontiac, Mich.
She—Wheeler Schebler Carburetor Co., Indianapolis, Ind.
Ste—Detroit Lubricator Co., Detroit, Mich.
Str—Stromberg Motor Devices Co., Chicago, Ill.
Til—Tillotson Mfg. Co., Toledo, Ohio.
V—Vacuum.
Zen—Zenith-Detroit Corp., Detroit, Mich.

Electrical System:
‡—Generator & Starter at Extra Cost.
†—Starter not Supplied, Generator at Extra Cost.
A-C—Allis-Chalmers Mfg. Co., Milwaukee, Wis.
Apo—Apollo Magneto Corp., Apollo, Pa.
A-K—Atwater Kent Mfg. Co., Phila., Pa.
A-L—Electric Auto-Lite Corp., Toledo, O.
Ber—Ericsson Mfg. Co., Buffalo, N. Y.
Bij—Bijur Motor Appliance Co., Hoboken, N. J.
Bos—American Bosch Magneto Co., Springfield, Mass.
Con—Connecticut Telephone & Electric Co., Meriden, Conn.
Del—Dayton Engin. Lab. Co., Dayton, Ohio.
Dyn—Owen Dyneto Corp., Syracuse, N. Y.
Eis—Eisemann Magneto Corp., Brooklyn.
G&D—Gray & Davis, Boston, Mass.
Kin—Kokomo Electric Co., Kokomo, Ind.
K-W—K W Ignition Co., Cleveland, Ohio.
L-N—Leece-Neville Co., Cleveland, O.
N-E—North East Elec. Co., Rochester, N. Y.
Non—Not Supplied.
POL—Prest-O-Lite Co., Inc., Indianapolis, Ind.
Rem—Remy Electric Co., Anderson, Ind.
RBo—Robert Bosch Magneto Co., New York, N. Y.
Sci—Scintilla Magneto Co., New York, N.Y.
Sim—Simms Magneto Co., E. Orange, N. J.
Spl—Splitdorf Electrical Co., Newark, N. J.
Wag—Wagner Elec. Mfg. Co., St. Louis, Mo.
Wes—Westinghouse Elec. & Mfg. Co., Springfield, Mass.
USL—U. S. Light & Heat Corp., Niagara Falls, N. Y.

Clutch and Gearset:
•—Other ratios optional.
A—Amidships.
B & B—Borg & Beck Co., Chicago, Ill.
B-L—Brown-Lipe Gear Co., Syracuse, N. Y.
Cot—Cotta Transmission Corp., Rockford Ill.
Cov—Covert Gear Co., Lockport, N. Y.
Det—A. J. Detlaff Co., Detroit, Mich.
D-G—Detroit Gear & Machine Co., Detroit, Mich.
Dod—Dodge Brothers Co., Detroit, Mich.
D—Disk.
Dun—Dundore Mfg. Co., Reading, Pa.
Durs—Durston Gear Corp., Syracuse, N. Y.
Ful—Fuller & Sons Mfg. Co., Kalamazoo, Mich.
G-L—Grant Lee Gear Corp., Cleveland, O.
Har—Hartford Auto Parts Corp., Hartford, Conn.
Hoo—Hoosier Clutch Co., Muncie, Ind.
H-S—Hele-Shaw, Merchant & Evans Co., Philadelphia, Pa.
J—Unit with Jackshaft.
Jum—Price Hollister Corp., Rockford, Ill.
K—Cone.
Lon—Long Mfg. Co., Detroit, Mich.
M-E—Merchant & Evans Co., Phila., Pa.
M-M—Mechanics Mach. Co., Rockford, Ill.
Mun—Muncie Gear Works, Muncie, Ind.
O—Disk in Oil.
P—Plate.
R—Rear Axle.
U—Unit with Engine.
W-G—Warner Gear Co., Muncie, Ind.

Universal:
B.G.—Universal Machine Co., Bowling Green, Ohio.
Blo—Blood-Bros. Mach. Co., Allegan, Mich.
Det—Universal Products Co., Detroit, Mich.
Har—Hartford Auto Parts Corp., Hartford, Conn.
M-M—Mechanics Machine Co., Rockford, Ill.
M-E—Merchant & Evans Co., Phila., Pa.
Pet—Cleveland Universal Parts Co., Cleveland, Ohio.
Pic—Carl Pick Co., West Bend, Wis.
Sne—Snead & Co., Jersey City, N. J.
Spi—Spicer Mfg. Corp., S. Plainfield, N. J.
The—Thermoid Rubber Co., Trenton, N. J.
U-M—Universal Machine Co., Bowling Green, Ohio.
U-P—Universal Products Co., Detroit, Mich.

Front and Rear Axles:
½—Semi-Floating.
¾—Three-Quarter Floating.
Atl—Atlas Axle Co., Wilmington, Del.
Cla—Clark Equip. Co., Buchanan, Mich.
Col—Columbia Axle Co., Cleveland, O.
Con—Continental Axle Co., Edgerton, Wis.
C—Chain.
B—Straight Bevel.
D—Dead.
Eat—Eaton Axle Co., Cleveland, Ohio.
Fli—Flint Motor Axle Co., Flint, Mich.
F—Floating.
Huc—Sheldon Axle & Spring Co., Wilkes-Barre, Pa.
I—Internal Gear.
LM—L. M. Axle Co., Cleveland, Ohio.
P—Spur Gear.
R—Double Reduction.
Rus—Russel Motor Axle Co., Detroit, Mich.
S—Spiral Bevel.
Sal—Salisbury Axle Co., Jamestown, N. Y.
She—Sheldon Axle & Spring Co., Wilkes-Barre, Pa.
Shu—Shuler Axle Co., Inc., Louisville, Ky.
Std—Standard Parts Co., Cleveland, O.
Tim—Timken Detroit Axle Co., Detroit, Mich.
Tor—Eaton Axle & Spring Co., Cleveland, Ohio.
Vul—Vulcan Motor Axle Co.
Wal—Walker Axle Co., Chicago, Ill.
W—Worm.
Wis—Wisconsin Parts Co., Oshkosh, Wis.

Brake:
A—Rear Wheels only.
B—Drive Shaft and Rear Wheels.
C—Front and Rear Wheel.
D—Jackshaft and Rear Wheels.

Springs:
Am—American Auto Parts Co., Detroit, Mich.
Arm—General Motors Co., Pontiac, Mich.
Bea—Beans Spring Co., Inc., Massillon, O.
Bet—Betts Bros. Sp. Co., Inc., San Francisco, Cal.
Cha—Champion Auto Sp. Co., St. Louis, Mo.
Del—D. Delany & Son, Newark, N. J.
Det—Detroit Steel Prod. Co., Detroit, Mich.
G-C—Garden City Sp. Works, Chicago, Ill.
Har—Harvey Sp. & Forging Co., Racine, Wis.
I-C—Iron City Spring Co., Pittsburgh, Pa.
Lig—Liggett Sp. & Axle Co., Monongahela, Pa.
Mar—Maremont Mfg. Co., Chicago, Ill.
Mat—Mather Spring Co., Toledo, O.
Mer—E. R. Merril Spring Co., New York.
Pen—Penn Sp. Works, Baldwinsville, N. Y.
Per—Perfection Sp. Co., Cleveland, O.
Phi—Phila. Sp. Works, Phila., Pa.
P.S.—Point Sp. Co., Pittsburgh, Pa.
She—Sheldon Axle & Sp. Co., Wilkes-Barre, Pa.
S. S.—Standard Steel Sp. Co., Coraopolis, Pa.
Ste—Sterling Spring Co., Pittsburgh, Pa.
Tem—Temme Sp. Corp., Chicago, Ill.
Tut—Tuthill Sp. Co., Chicago, Ill.
U. S.—United States Sp. Co., Los Angeles, Cal.
Vul—Jenkins Vulc. Sp. Co., Richmond, Ind.

Steering Gear:
CAS—C. A. S. Products Co., Columbus, O.
Dit—Ditwiler Mfg. Co., Galion, Ohio.
Dod—Dodge Bros. Co., Detroit, Mich.
Gem—Gemmer Mfg. Co., Detroit, Mich.
Jac—Saginaw Products Co., Saginaw, Mich.
Lav—Lavine Gear Co., Milwaukee, Wis.
M-P—Muncie Gear Works Corp., Muncie, Ind.
Ros—Ross Gear & Tool Co., Lafayette, Ind.
Sag—Saginaw Products Co., Saginaw, Mich.
Woh—Wohlrab Gear Co., Racine, Wis.

Wheels:
Arc—Archibald Wheel Co., Lawrence, Mass.
A-W—Auto Wheel Co., Lansing, Mich.
Bet—Bethlehem Steel Co., Bethlehem, Pa.
Bim—Bimel Spoke & Auto Wheel Co., Portland, Ind.
Bud—Budd Wheel Co., Phila., Pa.
Cla—Clark Equip. Co., Buchanan, Mich.
Day—Dayton Steel Foundry Co., Dayton, Ohio.
Det—Detroit Panel & Plywood Co., Detroit, Mich.
Dis—Disteel Wheel Corp., Detroit, Mich.
Hay—Hayes Wheel Co., Jackson, Mich.
Hoo—Hoopes, Bro. & Darlington, Inc., West Chester, Pa.
Ind—Indestructible Wheel Co., Lebanon, Ind.
Int—Interstate Foundry Co., Chicago, Ill.
Jon—Jones, Phineas & Co., Newark, N. J.
Kel—Kelsey Wheel Co., Detroit, Mich.
MM—Michigan Malleable Iron Co., Detroit.
Mot—Motor Wheel Corp., Lansing, Mich.
Mun—Muncie Wheel Co., Muncie, Ind.
Nor—Northern Wheel Corp., Alma, Mich.
Pru—Prudden Wheel Co., Lansing, Mich.
Roy—Royer Wheel Co., Aurora, Ind.
Sch—Schwarz Wheel Co., Phila., Pa.
Smi—Smith Wheel, Inc., Syracuse, N. Y.
StM—St. Marys Wheel Co., St. Marys, O.
Std—Standard Wheel Co., Terre Haute, Ind.
Van—Van Wheel Corp., Oneida, N. Y.
Wal—Walker Axle Co., Chicago, Ill.
Way—Wayne Wheel Co., Newark, N. Y.
Whit—Whitcomb Wheel Co., Kenosha, Wis.

Rim Equipment:
Fir—Firestone Steel Products Co., Akron, Ohio.
Gdy—Goodyear Tire & Rubber Co., Akron, Ohio.
Hay—Hayes Wheel Co., Jackson, Mich.
Jax—Jaxon Steel Prod. Co., Jackson, Mich.
Kel—Kelsey Wheel Co., Detroit, Mich.
Mil—Miller Rubber Co., Akron, Ohio.
Non—None Supplied.

Replacement Table—Corrected Monthly

Including Piston Ring Sizes, Carburetor Sizes, Hose Sizes, Fan Belt Sizes, Brake Lining Sizes and Truck Frame Dimensions

★ Note: Under Carburetor Inlet Diameter Will be Found Either the Size of Main Air Intake or the Gasoline Fuel Line

Fan Belt Type: V—V-Shape, F—Flat, R—Round

NAME, MODEL AND TONNAGE	ENGINE												BRAKE LINING								FRAME				
	Piston Rings		Carburetor			Upper Hose		Lower Hose		Fan Belt			Service				Emergency				Length			Width	
	No. per Cyl.	Width	Outlet Diameter	★ Inlet Diameter	Vertical or Horizontal	Length	Width	Length	Width	Length	Width	Type	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat	Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
Ace 40–1½	3	¼	1	1	V	7	1¾	8	1¼	40 5/8	2	F	12	3¼	¼	4	12	3¼	¼	4	122½	76 3/8	215¼	32	9
Ace 60–3	3	¼	1¼	¼	V	10	2	15	1¼	42 5/8	2	F	13½	3½	¼	4	13½	3½	¼	4	Opt	84½	241	.....	9½
Acme 20L–1½	3	¼	1¼	1¼	V	7	1¼	11	1¼	34	1¼	F	12	3	¼	4	12	3	¼	4	108 5/8	63 3/8	200	34	10½
Acme 40–2	4	¼	1	1	V	8	1½	11	1½	40	1½	F	12	3¼	¼	2	12	3¼	¼	2	123 3/8	74 3/8	208	34	9¾
Acme 40L–2	4	¼	1¼	1¼	V	11½	1½	12½	1½	39½	1½	F	12	3¼	¼	2	12	3¼	¼	2	123 3/8	74 3/8	214½	34	9¾
Acme 60–3	4	¼	1¼	1¼	V	11½	1½	12½	1½	39½	1½	F	13	3½	¼	2	13	3½	¼	2	132 3/8	79 3/8	223½	34	10
Acme 60L–3	4	¼	1¼	1¼	V	11½	1½	12½	1½	41¾	1½	F	13	3½	¼	2	13	3½	¼	2	140 ‡‡	79 3/8	235½	34	10
Acme K (Bus)	3	¼	1½	1 7/8	V	12¾	1 ¼	12¾	1 ¼	34½	1¼	F	15½	3¾	¼	2	15½	3¾	¼	2	220 1/8	127 5/8	312	41 3/8	6
Acme 90–4½	4	¼	1¼	1¼	V	10	1½	12	1½	41¾	1½	F	15½	3¾	¼	2	15½	3¾	¼	2	150¼	95¼	243	36	10¾
Acme 90L–4½	4	¼	1½	1½	V	10	1½	10	1½	40½	1¾	F	15½	3¾	¼	2	15½	3¾	¼	2	153¾	96¾	255	37	10¾
Acme 125–6¼	4	¼	1½	1½	V	10	1½	10	1½	40½	1¾	F	18	4	¼	2	18	4	¼	2	159¾	99¾	261	37	10
American-LaFrance W	3	¼	1 ‡‡	1 ‡‡	V	5 1/16	1½	10½	1½	36	2	F	†	†	¼	4	17	3½	¼	4	132	81 ¼	236 ¼	33	10
American-LaFrance W	3	¼	1 ‡‡	1 ‡‡	V	5 1/16	1½	10½	1½	36	2	F	†	†	¼	4	17	3½	¼	4	156	98 ¼	260 ¼	33	10
American-LaFrance W	3	¼	1 ‡‡	1 ‡‡	V	5 1/8	1½	10½	1½	36	2	F	†	†	¼	4	17	3½	¼	4	180	110 ¼	284 ¼	33	10
American-LaFrance Y	3	¼	1 ‡‡	1 ‡‡	V	9	1½	11½	1½	42	2	F	11¾	8	¼	2	21	4	¼	4	144¼	89 7/8	244¼	35 ‡‡	9
American-LaFrance Y	3	¼	1 ‡‡	1 ‡‡	V	9	1½	11½	1½	42	2	F	11¾	8	¼	2	21	4	¼	4	168¼	103 7/8	268¼	35 ‡‡	9
American-LaFrance Y	3	¼	1 ‡‡	1 ‡‡	V	9	1½	11½	1½	42	2	F	11¾	8	¼	2	21	4	¼	4	210¾	124 7/8	310½	35 ‡‡	9
American-LaFrance V	3	¼	1 ‡‡	1 ‡‡	V	9	1½	11½	1½	42	2	F	11¾	8	¼	2	21	4	¼	4	144¼	90¼	244¼	36	10
American-LaFrance Y	3	¼	1 ‡‡	1 ‡‡	V	9	1½	11½	1½	42	2	F	11¾	8	¼	2	21	4	¼	4	192¼	113 7/8	292¼	35 ‡‡	9
American-LaFrance V	3	¼	1 ‡‡	1 ‡‡	V	9	1½	11½	1½	42	2	F	11¾	8	¼	2	21	4	¼	4	210¼	125	310¼	36	10
Armleder 30–1½	3	¼	1¼	¼	V	10	1¾	16½	1¼	33 ‡‡	1½	F	11 ‡‡	3¼	¼	4	11 ‡‡	3¼	¼	4	Opt	71 5/8	215 3/8	32	9¼
Armleder 50–2½	4	¼	1¼	¼	V	12	2	17¾	1¼	35¾	2	F	13	3½	¼	4	13	3½	¼	4	Opt	77 7/8	228 3/4	32	10
Atterbury 24-R	4	¼	1¼	5/8	V	10½	1½	16	1½	34¼	5/8	V	11 ¼	3¼	¼	4	11 ¼	3¼	¼	4	119¼	76	211¾	34	9½
Atterbury 22C–2½	4	¼	1½	5/8	V	10½	1½	16	1½	40½	1½	F	13 ¼	3½	¼	4	13 ¼	3½	¼	4	129½	78¾	225	34	9 ¼
Atterbury 22D–3½	4	¼	1½	5/8	V	10½	1½	16	1½	40½	1½	F	15 5/8	3¾	¼	4	15 5/8	3¾	¼	4	142¾	93¼	242	37½	10 ¼
Atterbury 24E	4	¼	1½	5/8	V	10½	1½	16	1½	42 3/8	1¾	F	17¾	4	¼	4	17¾	4	¼	4	159¾	89¼	263	37½	10 ¼
Autocar XXI–F–1½	4	¼	1 ¼	1 5/8	V	5	1 ⅛	9½	1 ⅛	.....	.....	...	16¼	2½	¼	4	13½	2½	¼	4	91	67	156	34	9½
Autocar XXI–G–1½	4	¼	1 ¼	1 5/8	V	5	1 ⅛	9½	1 ⅛	.....	.....	...	16¼	2½	¼	4	13½	2½	¼	4	114	90	179	34	9½
Autocar XXVI–M4–6	3	¼	1 ¼	1 5/8	V	3½	1½	3½	1½	49½	2	F	23½	2¾	¼	4	23½	2¾	¼	4	139¾	80¾	223¼	34 ⅛	10
Autocar XXVI–L4–6	3	¼	1 ¼	1 5/8	V	3½	1½	3½	1½	49½	2	F	23½	2¾	¼	4	23½	2¾	¼	4	175¾	116¾	259¼	34 ⅛	10
Autocar XXVII–H3	3	¼	1 ¼	1 5/8	V	3½	1½	3½	1½	47½	2	F	20½	2	¼	4	20½	2	¼	4	131½	76	213¼	34 ⅛	10 ⅛
Autocar XXVII –K3	3	¼	1 ¼	1 5/8	V	3½	1½	3½	1½	47½	2	F	20½	2	¼	4	20½	2	¼	4	155½	100	237¼	34 ⅛	10 ⅛
Available J–H–1½	4	¼	2½	1 ¼	...	11	1 5/8	14	1 5/8	40	2	...	48	2½	¼	2	36	2½	¼	2	120	80½	201¼	32	9
Available J–H2	4	¼	2½	1 ¼	V	12	1 5/8	14	1 5/8	40	2	F	48	2½	¼	2	36	2½	¼	2	120	84½	212	32	9
Available J–H–2½	3	¼	2½	1 ¼	...	11	1 5/8	14	1 5/8	40	2	...	13½	3½	¼	4	13½	3½	¼	4	144	85 5/8	226 7/8	32	9
Available J–H3½	4	¼	2½	1 ¼	V	12	1 5/8	14	1 5/8	42	2	F	16	3¾	¼	4	16	3¾	¼	4	168	106 3/8	254 7/8	36	9
Available J–H5	3	¼	2½	1 ‡‡	....	12	2	16	2	40	2	...	18	4	¼	4	18	4	¼	4	168	112 5/8	263 1/8	38	9
Bessemer G–1	3	¼	1	¼	V	11½	2¼	10	2¼	42	5/8	V	46	2½	¼	2	44	2¼	¼	2	98¼	58½	182¾	34	.....
Bessemer H–2–1½	3	¼	1	¼	V	11½	2¼	10	2¼	43	5/8	V	16 3/8	2	¼	8	16 3/8	2	¼	8	116	76	203	34	.....
Bessemer J2–2½	3	¼	1¼	¼	V	12	1½	5	1 ⅞	36¼	1¼	F	18 3/8	2¼	¼	8	18 3/8	2¼	¼	8	142 3/8	92¼	229	34	.....
Bethlehem KN–1	3	¼	....	1	V	8¾	2 ¼	8	2 ¼	35½	1¼	F	20½	1¾	¼	2	20½	1¾	¼	2	89¼	56¾	175	32 ¼	10½
Bethlehem GN–2	3	¼	....	1¼	V	8½	2 5/8	9½	2 5/8	40 7/8	1½	F	51	2½	¼	1	37	2½	¼	1	116¾	74	208¼	34½	9¼
Bethlehem L	3	¼	....	1¼	V	8½	2 5/8	9½	2 5/8	40 7/8	1½	F	51	2½	¼	1	37	2½	¼	1	134¾	81½	226¼	34½	8½
Betz J3–1	3	¼	1	1¼	V	12	1½	17	1¼	33½	1½	F	11	3	¼	4	11	3	¼	4	126	90	215	34	10
Betz D3–2½	3	¼	1¼	¼	V	12	2 5/8	12	1½	33½	1¼	F	12	3½	¼	4	12	3½	¼	4	Opt	.....	.....	34	.....
Brinton C–1½	3	¼	1 ¼	5/8	....	11	1¼	13	1¼	33	‡‡	F	39	2½	¼	1	38	2½	¼	1	118	.....	.....	.....	33
Brinton D–2½	3	¼	1 ¼	5/8	....	11	1¼	13	1¼	33	‡‡	F	13	3½	¼	2	13	3½	¼	2	135½	.....	.....	.....	33
Brockway S–12–1½	3	¼	1	1¼	V	10½	2¼	5½	2¼	39	1¼	F	10	3½	¼	4	10	3¼	¼	4	118	72	118½	32	.....
Brockway K–11–2½	4	¼	1¼	1½	V	6½	1¾	13	1¼	34	1¼	F	13	3½	¼	4	13	3½	¼	4	142	89½	123½	34	.....
Brockway R–12–3½	4	¼	1¼	1½	V	9½	1¾	14	1¼	34	1½	F	15½	3¾	¼	4	15½	3¾	¼	4	176	102¾	175	36	.....
Brockway T–6–5	4	¼	1½	1¾	V	13	2	22	2	40 3/8	2	F	17¾	4	¼	4	17¾	4	¼	4	176	104½	176	36	.....
Casco A–1	4	¼	1 ¼	¼	V	12	1¾	14½	1¼	34¾	1½	F	48½	2½	¼	1	48	2¼	¼	1	104	61	192¼	34	10
Chevrolet Sup. Com. Chassis	3	¼	1	¼	V	7½	1¼	5 3/8	1¼	29 ‡‡	‡‡	V	34	1½	¼	2	28	1¼	¼	2	Opt	Opt	146 1/16	44 5/32	9 7/8
Chevrolet Utility Exp	3	¼	1	¼	V	7½	1¼	5 3/8	1¼	29 ‡‡	‡‡	V	37	2	¼	2	32 5/8	1¾	¼	2	Opt	Opt	156 ‡‡	37	10
Clinton 20–1¼	4	¼	1	¼	H	8	1¾	14	1¼	33	1½	F	11¾	3¼	¼	4	11¾	3¼	¼	4	112	73¾	207	34	10
Clinton 45–2	4	¼	1¼	¼	H	11	1¾	17½	1¼	36 3/8	2	F	11¾	3¼	¼	4	11¾	3¼	¼	4	131	81	233	33¼	9
Clinton 65–3	4	¼	1½	¼	H	11	2	19	1¼	38 3/8	2	F	13 ¼	3½	¼	4	13 ¼	3½	¼	4	166	102	270½	33¼	9½
Clinton 90–90M–4	4	¼	1¼	¼	H	13¼	2	19	1¼	38 3/8	2	F	15 5/8	3¾	¼	4	15 5/8	3¾	¼	4	163	105	270½	38	8½
Clinton 120L–120LM–5	4	¼	1½	¼	H	12	2	18	1½	41	2	F	18	4	¼	4	18	4	¼	4	206½	115	318	38	8
Clinton 120S–120SM–5–7	4	¼	1½	¼	H	12	2	18	1½	41	2	F	18	4	¼	4	18	4	¼	4	130½	91	242	38	10
Clydesdale 120B–5–5–6	3	¼	1 ‡‡	¼	V	9	2	18½	2	46½	2	F	18	4	¼	4	18	4	¼	4	131	.....	.....	38	.....
Clydesdale 90–3½–4½	3	¼	1 5/8	¼	V	9	1½	14	1½	42	1½	F	16	3¾	¼	4	16	3¾	¼	4	143	.....	.....	38	.....
Clydesdale 65EX 2½–3	3	¼	1 5/8	¼	V	9	1½	14	1½	42	1½	F	13¼	3½	¼	4	13¼	3½	¼	4	132	.....	.....	33¼	.....
Clydesdale 65X–2½–3	3	¼	1 ¼	¼	V	11	1½	11	1½	11	1½	F	13¼	3½	¼	4	13¼	3½	¼	4	137	.....	.....	33¼	.....
Clydesdale 42–1½–2	3	¼	1 ¼	¼	V	15	2	12	2	41	¾	V	12	3¼	¼	4	12	3¼	¼	4	117	.....	.....	34	.....
Clydesdale 20–1–1½	3	¼	1 ¼	¼	V	15	2	12	2	41	¾	V	11¼	3	¼	4	11¼	3	¼	4	95	.....	.....	34	.....
Clydesdale 18–¾–1¼	3	¼	1 ¼	¼	V	15	2	12	2	41	¾	V	11¼	2½	¼	4	11¼	2½	¼	4	95	.....	.....	34	.....
Clydesdale 10–¾–1¼	3	¼	1 ¼	¼	V	9	2	9	2	41	¾	V	11¼	2½	¼	4	11¼	2½	¼	4	109	.....	.....	34	.....
Clydesdale 10A–1–¾–1¼	3	¼	1 ¼	¼	V	9	2	9	2	41	¾	V	11¼	2½	¼	4	11¼	2½	¼	4	109	.....	.....	34	.....
Columbia H–1½	3	¼	1	....	V	10	1¼	12	1¼	39	1¼	F	23	1¾	¼	4	23	1¾	¼	4	Opt	Opt	Opt	32½	10
Columbia G–2½	3	¼	1¼	....	V	10	1¼	12	1¼	39	1¼	F	26	2	¼	4	26	2	¼	4	Opt	Opt	Opt	32½	9
Columbia K–3	3	¼	1¾	....	V	11	1½	13	1½	42	2	F	26	2	¼	4	26	2	¼	4	Opt	Opt	Opt	32½	9

12 O. D. 7½ I. D.

Replacement Table—Continued

NAME, MODEL AND TONNAGE	ENGINE													BRAKE LINING							FRAME				
	Piston Rings		Carburetor			Upper Hose		Lower Hose		Fan Belt				Service				Emergency				Length			Width	
	No. per Cyl.	Width	Outlet Diameter	Inlet Diameter	Vertical or Horizontal	Length	Width	Length	Width	Length	Width	Type		Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat	Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
Commerce 11–2000	3	1/4	1	1/4	V	10	2	10	2	44	3/4	V		50	2	1/4	2	48 1/2	2	1/4	2	92 5/8	53 5/8	193	34	9
Commerce 14B–3000	4	1/4	1	1/4	V	10	2	9 1/2	1 1/2	39 3/4	1/4	F		11 1/4	3 1/4	1/4	4	11 1/4	3 1/4	1/4	4	117	75	210	34	8 3/4
Commerce 25B–5000	4	1/4	1 1/4	1/4	V	9 1/2	1 1/2	15 1/2	1 1/2	42	1 1/2	F		13	3 1/2	1/4	4	13	3 1/2	1/4	4	132	84	228 1/2	34	12 1/2
Concord E–1	4	1/4	1	1/4	H	7	1 7/8	9 1/2	1 3/8	33 1/2	2	F		12	3	1/4	4	12	3	1/4	4	.....	.....	.....	32 1/4	.....
Concord G–2	4	1/4	1	1/4	H	7	1 7/8	9 1/2	1 3/8	33 1/2	2	F		13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	.....	.....	.....	32 1/4	.....
Concord H–2	4	1/4	1 1/4	1/4	H	7	1 7/8	9 1/2	1 3/8	33 1/2	2	F		12	3 1/4	1/4	4	12	3 1/4	1/4	4	.....	.....	.....	32 1/4	.....
Concord J–2 1/2	4	1/4	1 1/4	1/4	H	7	1 7/8	9 1/2	1 3/8	33 1/2	2	F		13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	.....	.....	.....	32 1/4	.....
Concord JL–3	4	1/4	1 1/4	1/4	H	7	1 7/8	9 1/2	1 3/8	33 1/2	2	F		13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	.....	.....	.....	32 1/4	.....
Corbitt S–3/4	3	1/4	1	1/4	H	8	2	14	2	38	1 1/4	F		16 3/4	1 3/4	1/4	4	16 3/4	1 3/4	1/4	4	103	59	196	34	11 1/4
Corbitt E–1	3	1/4	1	1/4	H	9	2	12	2	41	5/8	V		16 3/4	1 3/4	1/4	4	16 3/4	1 3/4	1/4	4	104	62	198	34	11 1/4
Corbitt D–1 1/2	3	1/4	1	1/4	V	11	1 1/4	15	1 1/4	46	1 1/2	F		18	2	1/4	4	18	2	1/4	4	110	72	206	34	10
Corbitt C–2	3	1/4	1 1/4	1/4	V	13	1 1/4	15	1 1/4	46	1 1/2	F		22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	132	78	230	35	10 1/4
Corbitt B–2 1/2	3	1/4	1 1/4	1/4	V	13	1 1/4	15	1 1/4	46	1 1/2	F		22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	136	78	232	35	10 3/4
Corbitt R–2 1/2–3	3	1/4	1 1/4	1/4	V	14	1 1/4	8	1 1/4	46	1 1/2	F		22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	153	92	254	35	10 3/4
Corbitt A–3 1/2–4	3	1/4	1 1/4	1/4	V	14	1 1/4	8	1 1/4	46	1 1/2	F		21	4	1/4	2	21	3	1/4	2	168	106	266	35	9
Corbitt AA–5	3	1/4	1 1/2	1/4	V	13	2	14	2	36	2	F		68 3/4	3	1/4	2	68 3/4	3	1/4	2	168	106	268	38	10
Day-Elder G–1 1/2	4	1/4	1	1 1/4	V	.....	1 3/4	.....	1 1/4	.....	1 1/2	F		11 3/4	3 1/4	1/4	4	11 3/4	3 1/4	1/4	4	105 1/4	61 1/4	191	35	10 1/4
Day-Elder H–2	4	1/4	1	1 1/4	V	.....	1 3/4	.....	1 1/4	.....	1 1/2	F		11 3/4	3 1/4	1/4	4	11 3/4	3 1/4	1/4	4	132 1/4	77 1/4	218	34	9 3/4
Day-Elder I–2 1/2	4	1/4	1 1/4	1 1/2	V	.....	1 3/4	.....	1 1/4	.....	2	F		13 1/4	3 1/2	1/4	4	13 1/4	3 1/2	1/4	4	123 1/2	77 1/2	216	35	10 1/2
Day-Elder J–3	4	1/4	1 1/4	1 1/2	V	.....	2	.....	1 1/4	.....	2	F		13 1/4	3 1/2	1/4	4	13 1/4	3 1/2	1/4	4	115 3/4	77 1/4	214 1/2	35	10 1/4
Day-Elder K–4	4	1/4	1 1/4	1 1/2	V	.....	2	.....	1 1/4	.....	2	F		15 5/8	3 3/4	1/4	4	15 5/8	3 3/4	1/4	4	121	86	220	37	8 1/4
Day-Elder L–5	4	1/4	1 1/2	1 3/4	V	.....	2	.....	1 1/2	.....	2	F		17 1/4	4	1/4	4	17 1/4	4	1/4	4	148	88	253	37	10 1/4
Diamond T–75–1/4–1	3	1/4	3/4	1	V	8	1 1/2	10 1/2	1 1/4	33 1/4	1 1/4	F		22	2 1/2	1/4	2	46 5/8	2 1/4	1/4	1	90	57 1/2	182 1/2	34	.....
Diamond T–O4–1–1 1/4	3	1/4	1	1 1/4	V	9	1 1/4	6	1 1/4	35	2	F		48	2 1/2	1/4	2	33	2 1/2	1/4	2	100	.....	.....	34	.....
Diamond T–T–1 1/2	3	1/4	1	1 1/4	V	9	1 1/4	6	1 1/4	35	2	F		11 1/2	3 1/4	1/4	4	11 1/2	3 1/2	1/4	4	Opt	.....	.....	34	.....
Diamond T–U2–2 1/2	3	1/4	1 1/4	1 1/4	V	9	1 1/4	8	1 1/4	35	2	F		13 1/4	3 1/2	1/4	4	13 1/4	3 1/2	1/4	4	Opt	.....	.....	34	.....
Diamond TK–3 1/2	3	1/4	1 1/4	1 1/2	V	10	1 1/2	10	1 1/2	35	2	F		15 5/8	3 3/4	1/4	4	15 5/8	3 3/4	1/4	4	Opt	.....	.....	37	.....
Diamond T–S–5	3	1/4	1 1/2	1 3/4	V	9	2	21	2	40 3/8	2	F		18	4	1/4	4	17 1/4	4	1/4	4	Opt	.....	.....	37	...
Dixon Model D	4	1/4	1	....	V	11	1 1/2	8	1 1/2	41	....	F		13	3 1/2	1/4	4	13	3 1/2	1/4	4	126	71	221 1/2	34 1/2	9 1/2
Dixon Model C	4	1/4	1 1/4	....	V	11	1 1/2	9	1 1/2	42	....	F		13	3 1/2	1/4	4	13	3 1/2	1/4	4	Opt	71	221 1/2	34 1/2	9 1/2
Dixon Model A	4	1/4	1 1/4	....	V	12	1 1/2	10	1 1/2	42	....	..		.....	.....	1/4	4	13	.....	1/4	4	Opt	71	221 1/2	36	9 1/2
Dorris K–4–2 1/2	3	1/4	1 1/4	1 1/4	V	2 1/4	1 1/2	6 1/4	1 1/4	42 7/8	2	F		13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	142 3/4	96 1/2	233 1/2	34	9
Dorris K–7–3 1/2	3	1/4	1 1/4	1 1/4	V	2 1/4	1 1/2	6 1/4	1 1/4	42 7/8	2	F		15 3/4	3 3/4	1/4	4	15 3/4	3 3/4	1/4	4	178 1/2	130 1/2	270 1/2	36	9
Double Drive TT–3	4	1/4	1 1/4	1/4	V	12	2	19	1 1/2	34	2	F		8 3/8	4	1/4	4	18	4	1/4	4	132	100	216	34	9 1/4
Duplex G	4	1/4	1	....	V	.....	1 3/4	....	1 1/4	.....	....	F		11	2 1/2	1/4	4	11	2 1/2	1/4	4	102	.....	.....	34	.....
Duplex GH	4	1/4	1	....	V	.....	1 3/4	....	1 1/4	.....	....	F		19	2	1/4	4	19	2	1/4	4	112	.....	.....	34	.....
Duplex A	3	1/4	1 1/4	....	V	.....	1 1/4	....	1 1/4	.....	....	F		20	2 1/4	1/4	4	20	2 1/4	1/4	4	121	.....	.....	34	.....
Duplex AC	3	1/4	1 1/4	....	V	.....	1 1/4	....	1 1/4	.....	....	F		26	2	1/4	4	26	2	1/4	4	140	.....	.....	34	.....
Duplex E	3	1/4	1 1/4	1 1/2	V	.....	2	....	1 1/4	.....	....	F		10	2 1/2	1/4	2	52	2 1/2	1/4	4	128	.....	.....	40	.....
Duplex FD	4	1/4	1 1/4	....	V	.....	2	....	1 1/4	.....	....	F		26 1/4	2	1/4	4	26 1/4	2	1/4	4	Opt	.....	.....	34	.....
Eagle 100–2	4	1/4	1 1/4	1	V	14	2	16	1 1/4	36	1 1/2	..		49 1/2	3	1/4	2	46	2	1/4	2	Opt	.....	.....	36	.....
Eagle 101–1 1/4	4	1/4	1 1/4	1	V	14	2	16	1 1/4	34	1 1/2	..		21	2 1/2	1/4	4	21	2 1/4	1/4	4	Opt	.....	.....	31	.....
Eagle 104–2–3	4	1/4	1 1/4	1 1/4	V	14	2	16	1 1/4	36	1 1/2	F		49 1/2	3	1/4	2	46	2	1/4	2	Opt	.....	.....	32	.....
Fageol 1 1/2–2	3	1/4	1 1/4	1 1/2	V	10	2 1/2	20	2 1/2	37 3/4	1 1/2	F		19 1/4	1 3/4	1/4	2	19 1/4	1 3/4	1/4	2	120	.....	.....	30	.....
Fageol 2 1/2–3	3	1/4	1 1/4	1 11/16	V	10	1 1/4	14 3/4	1 1/4	34 3/4	1 1/2	F		13 1/4	3 1/2	1/4	2	13 1/4	3 1/4	1/4	2	141	.....	.....	34	.....
Fageol 3 1/2–4	3	1/4	1 5/8	2	V	9	1 1/2	17 1/2	1 1/2	40 1/2	1 1/2	F		15 1/2	3 3/4	1/4	2	15 1/2	3 3/4	1/4	2	159 1/2	.....	.....	37 3/4	.....
Fageol 5–6	3	1/4	1 5/8	2	V	9	1 1/2	17 1/2	1 1/2	40 1/2	1 1/2	F		18	4	1/4	2	18	4	1/4	2	161 1/4	.....	.....	37 3/4	.....
Federal R–2–1	4	1/4	1	....	V	.....	1 1/2	....	1 1/2	.....	....	F		.....	.....	1/4	4	.....	.....	1/4	4	110	.....	.....	.....	.....
Federal S–21–1 1/2	4	1/4	1	....	V	.....	1 1/2	....	1 1/2	.....	....	F		.....	.....	1/4	4	.....	.....	1/4	4	118	.....	.....	.....	.....
Federal S–22–1 1/2	4	1/4	1	....	V	.....	1 1/2	....	1 1/2	.....	....	F		.....	.....	1/4	4	.....	.....	1/4	4	118	.....	.....	.....	.....
Federal U–2–2 1/2	4	1/4	1 1/4	....	V	.....	1 1/4	....	1 1/2	.....	....	F		.....	.....	1/4	4	.....	.....	1/4	4	134	.....	.....	.....	.....
Federal WL–4	4	1/4	1 1/4	....	V	.....	1 1/2	....	1 1/2	.....	....	F		.....	.....	1/4	4	.....	.....	1/4	4	154	.....	.....	.....	.....
Federal X2–5	4	1/4	1 1/2	....	V	.....	1 3/4	....	1 1/2	.....	....	F		.....	.....	1/4	4	.....	.....	1/4	4	15.	.....	.....	.....	.....
Federal Light Duty	4	1/4	1 1/4	....	V	.....	1 1/4	....	1 1/2	.....	....	F		.....	.....	1/4	4	.....	.....	1/4	4	86	.....	.....	.....	.....
Federal Heavy Duty	4	1/4	1 1/4	....	V	.....	1 1/4	....	1 1/2	.....	....	F		.....	.....	1/4	4	.....	.....	1/4	4	99	.....	.....	.....	.....
Ford T–1	3	1/4	1.06	1 1/4	H	4	2	2 3/4	1 3/4	26 1/16	1 3/8	R		23 3/8	1 1/8	1/4	1	12	1 5/8	1/4	2	60	.....	123	23	9 1/4
Front Drive FT–1 1/2	4	1/4	1	1/4	V	13 3/4	1 3/4	17	1 3/8	33	2	F		13	4	1/4	4	15	4	1/4	4	132	98	204	34	10 1/2
Fulton C–2	4	1/4	1 1/2	1 1/2	H	13	2	15	2	37 1/2	1 1/2	F		50 1/2	3	1/4	1	25	2 3/4	1/4	1	120	73	215 1/2	34	10
Fulton A–1	4	1/4	1 1/2	1 1/2	H	13	2	15	2	37 1/2	1 1/2	F		48	2 1/2	1/4	1	47 1/2	2 3/4	1/4	1	106	60	192	33 3/4	12
Fulton C–2	4	1/4	1 1/4	1 1/2	V	9 3/4	2	10	1 1/4	35 1/2	1 1/2	F		50 1/2	3	1/4	1	25	2 3/4	1/4	1	120	73	215 1/2	34	10
F. W. D. B–3	3	1/4	1 11/16	1 1/2	V	4	2	5	1 1/2	40	1 1/8	F		27	3 1/2	1/4	1	43	2 3/4	1/4	2	148	97	200	36	9 3/4
Garford 15–1	4	1/4	1	....	V	.....	.....	.....	.....	34	1 1/2	F		11	2 1/2	1/4	4	11	2 1/2	1/4	4	96	61	187	34	11
Garford 30–1 1/2	4	1/4	1 1/4	....	V	.....	.....	.....	.....	31 1/2	5/8	R		11 3/4	3 1/4	1/4	4	11 3/4	3 1/4	1/4	4	120	71	220	34	9
Garford 50–2 1/2	4	1/4	1 1/4	....	V	.....	.....	.....	.....	38 5/8	5/8	R		13 1/4	3 1/2	1/4	4	13 1/4	3 1/2	1/4	4	144	82	246	34	7
Garford 80–4	4	1/4	1 1/4	....	V	.....	.....	.....	.....	39	2	R		15 5/8	3 3/4	1/4	4	15 5/8	3 3/4	1/4	4	150	88 1/2	251	36	7
Garford 68D–5	4	1/4	1 1/2	....	V	.....	.....	.....	.....	39 1/4	5/8	R		17 3/4	4	1/4	4	17 3/4	4	1/4	4	150	88 1/2	251	36	10
Garford 151–A–5	4	1/4	1 1/2	....	V	.....	.....	.....	.....	39 1/4	5/8	R		10 1/2	4	3/8	2	21 5/8	4	1/4	4	150	88 1/2	251	36	11
Gary WLD–1–1 1/2	4	1/4	1	3/8	V	.....	2	.....	.....	.....	1	F		11 1/2	3	1/4	4	11 1/2	3	1/4	4	97 3/8	.....	.....	34	11 1/2
Gary G15–1 1/2	4	1/4	1 1/4	3/8	V	13 1/2	2	12	1 1/4	32	1 1/4	F		12	3 1/4	1/4	4	12	3 1/4	1/4	4	120	72	214	34	10 3/4
Gary E25–2 1/2	4	1/4	1 1/4	3/8	V	10	2	12	1 1/4	36	2	F		13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	120	76	214	34	10
Gary Y35–3 1/2	4	1/4	1 1/4	3/8	V	13	2	16 1/2	1 1/4	36	2	F		15 3/4	3 3/4	1/4	4	15 3/4	3 3/4	1/4	4	148	86	247	36 3/4	10 3/4
Gary B50–5	4	1/4	1 1/2	3/8	V	14	2	18	1 3/8	.....	2	F		18 1/4	4	1/4	4	18 1/4	4	1/4	4	168	99	275	39	10 3/4
G.M.C. K–16	4	1/4	1 1/4	1 5/8	V	8 3/4	1 1/2	8 1/4	1 1/2	33 1/2	11/32	V		49 5/8	2 1/8	1/4	2	47	2 3/8	1/4	2	89	57	183 1/2	34	8 3/4
G.M.C. K–41	4	1/4	1 1/4	1 5/8	V	10	1 3/4	9 1/2	1 3/4	35 3/4	11/32	V		13	3 1/2	1/4	4	13	3 1/2	1/4	4	Opt	Opt	Opt	33	9 1/2
G.M.C. K–71	4	1/4	1 1/4	1 5/8	V	11 3/4	1 3/4	9 1/2	1 3/4	35 3/4	11/32	V		15 1/8	3 3/4	1/4	4	15 1/8	3 3/4	1/4	4	Opt	Opt	Opt	38	10 1/4
G.M.C. K–101	4	1/4	1 1/4	1 5/8	V	11 3/4	1 3/4	9 1/2	1 3/4	35 3/4	11/32	V		17 3/4	4	1/4	4	17 3/4	4	1/4	4	Opt	Opt	Opt	38	9 3/4
Gotfredson 20–B–1	4	1/4	1	1	V	10 1/4	1 3/4	10 1/2	1 1/4	32 1/8	1 1/2	F		42 1/4	3 1/4	1/4	1	11	2	1/4	2	86 1/4	56 11/16	181 1/4	32 1/2	8 1/8
Gotfredson 30–1 1/2	4	1/4	1	1	V	10 1/4	1 3/4	10 1/2	1 1/4	32 1/8	1 1/2	F		11 3/4	3 1/4	1/4	4	.....	.....	.....	.....	118 1/4	69 11/16	213 1/4	32 1/8	.....
Gotfredson 41–2	4	1/4	1 1/4	1 1/4	V	8 1/2	1 3/4	4	1 1/4	36 1/4	2	F		11 3/4	3 1/4	1/4	4	.....	.....	.....	.....	119 1/4	67 1/4	216 5/8	32	.....
Gotfredson 60–3	4	1/4	1 1/4	1 1/4	V	11	2	16 1/4	1 1/4	41	1 3/4	F		11 3/4	5	1/4	2	13 1/2	3 1/4	1/4	4	127	81 1/4	218 1/2	33	.....
Gotfredson 80–4	4	1/4	1 1/4	1 1/4	V	14	2	18	1 1/4	43	2	F		11 3/4	7	1/4	2	15 1/2	3 3/4	1/4	4	147	88 3/4	242 5/8	35	8 11/16
Gotfredson 100–5	4	1/4	1 1/2	1 1/4	V	14	2	19	1 1/2	43	2	F		12 3/4	7	1/4	2	18 1/4	4	1/4	4	156	93	256 1/2	38	10 1/2
Graham Bros. BB–1	4	1/4	1 1/8	1/4	V	9	1 1/2	7 1/4	1 1/4	34 1/2	1	F		41 3/4	2	1/4	2	41 3/4	2	1/4	2	86 3/4	46 3/4	192 3/4	34	.....
Graham Bros. CB&MB–1 1/2	4	1/4	1 1/8	1/4	V	9	1 1/2	7 1/4	1 1/4	34 1/2	1	F		41 3/4	2 1/4	1/4	2	41 3/4	2 1/4	1/4	2	96 3/4	56 3/4	202 5/8	34	.....
Graham Bros. LB&FB–1 1/2	4	1/4	1 1/8	1/4	V	9	1 1/2	7 1/4	1 1/4	34 1/2	1	F		41 3/4	2 1/4	1/4	2	41 3/4	2 1/4	1/4	2	132 3/4	74 3/4	238 5/8	34	.....
Gramm-Bernstein 10 Sp'd–1	3	1/4	1	1 1/2	V	12	2 1/4	14 1/2	2 1/4	29	1	F		48	2	1/4	2	26	2	1/4	1	97	54	180	30 1/8	.....
Gramm-Bernstein 15–1 1/2–2	3	1/4	1	1 1/2	V	10 1/4	2	6	2	39	1 1/4	F		48 1/2	2	1/4	2	45 7/8	1 1/2	1/4	2	120	74	205 11/16	32	.....
Gramm-Bernstein 65–1 1/2–2	3	1/4	1	1 1/2	V	10 1/4	2	6	2	39	1 1/4	F		19 3/4	1 3/4	1/4	4	19 3/4	1 3/4	1/4	4	120	74	205 11/16	32	.....

Replacement Table—Continued

NAME, MODEL AND TONNAGE	ENGINE											BRAKE LINING							FRAME				
	Piston Rings		Carburetor			Upper Hose		Lower Hose		Fan Belt			Service				Emergency				Length			Width	
	No. per Cyl.	Width	Outlet Diameter	★ Inlet Diameter	Vertical or Horizontal	Length	Width	Length	Width	Length	Width	Type	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat	Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
Gramm-Bernstein 125–2½	3	¼	1¼	1½	V	4½	1½	12	1½	32	2	F	8	5	¼	2	45	2	¼	4	126	77¾	214	32	.....
Gramm-Bernstein 30–3	3	¼	1¼	1½	V	11	1½	9	1½	33¾	2	F	22¾	2¼	¼	4	22¾	2¼	¼	4	129¾	81¾	226¾	36	.....
Gramm-Bernstein 75P–3½	3	¼	1¼	1½	V	11	1½	9	1½	33¾	2	F	22¾	2¼	¼	4	22¾	2¼	¼	4	129¾	.....	.....	36	.....
Gramm-Bernstein 40–4	3	¼	1¼	1½	V	11	1½	9	1½	33¾	2	F	28¾	2¾	¼	4	28¾	2¾	¼	4	144	87¾	240¾	36	.....
Gramm-Bernstein 50–5–6	3	¼	1½	1¾	V	23¼	2	13¾	1⅞	40¾	2	F	32	2¾	¼	4	32	2¾	¼	4	132	97	263½	36	.....
Grass Premier 40A	3	¼	1	1½	V	12	2¼	14½	2¼	29	1	F	22½	1¼	⅜	4	48	2½	⅜	2	98	70	192	31	.....
Grass Premier 60A1½	4	⅛	1¼	1½	V	14	2½	16	2½	.....	.....	...	48½	2	⅜	2	47	1½	⅜	2	108	66	204	31	.....
Grass Premier 70A2½	4	⅛	1¼	1½	V	14	2½	16	2½	.....	.....	...	.....	.....	.....	...	.....	.....	.....	...	120	.....	214	31	.....
Grass Premier 90A3½	3	¼	1½	1¾	V	11	1½	11	1½	40	1½	F	15⅝	3¾	¼	4	15¾	3¾	¼	4	95	83	192	35	.....
G. W. W. Super	3	⅜	1¼	1¾	V	8	1¾	17½	1¼	37½	1¼	F	49	2½	¼	2	47	1½	⅜	2	89	72	192	32	11½
Harvey WOA–2	4	⅛	1¼	2	V	11	2	14	1¼	35⅝	2	F	45	2	½	2	45	2	¼	2	139	87	242¼	32	10
Harvey WFB–2½	4	¼	1¼	2	V	11	2	14	1¼	35⅝	2	F	50	2¼	¼	4	50	2¼	¼	4	139	87	242¼	32	10
Harvey WHB–3½	4	¼	1½	2	V	12	2	14	1¼	36½	2	F	20¾	4	¼	4	20¾	3	¼	4	151¾	85¾	258⅞	35	9
Harvey WFT–6	4	¼	1¼	2	V	11	2	14	1¼	36½	2	F	50	2¼	¼	2	50	2¼	¼	2	84	52	189	32	10
Harvey WHT–10	4	¼	1½	2	V	12	2	14	1¼	36½	2	F	20¾	4	¼	4	20¾	3	¼	4	86	52½	191⅛	35	9
Hawkeye O	4	⅛	.....	1	V	12	2	9	1¼	.....	1½	F	.....	.....	.....	...	.....	.....	.....	...	.....	.....	.....	.....	.....
Hawkeye K	4	⅜	.....	1	V	12	2	9	1¼	.....	2	F	.....	.....	.....	...	.....	.....	.....	...	.....	.....	.....	.....	.....
Hawkeye M	4	¼	.....	1¼	V	12	2¼	9	1½	.....	2	F	.....	.....	.....	...	.....	.....	.....	...	.....	.....	.....	.....	.....
Hawkeye N	4	¼	.....	1¼	V	14	2½	12	1½	.....	2½	F	.....	.....	.....	...	.....	.....	.....	...	.....	.....	.....	.....	.....
Indiana 15–1½	3	⅛	1¼	.....	.....	17	1¼	14	1¼	38½	1	F	19	2	⅜	4	19	2	⅜	4	114	67⅜	213¼	34	10¼
Indiana 20–2	3	¼	1¼	.....	.....	6	1¼	13	1¼	26⅝	1½	F	22¼	2¼	¼	4	22¼	2¼	¼	4	126	74½	226½	33	10¼
Indiana 25–2½	3	¼	1¼	.....	.....	6	1¼	13	1¼	26⅝	1½	F	22¾	2¾	¼	4	22¼	2¼	¼	4	138	81	229⅜	33	9¾
Indiana 35–3½	3	¼	1¼	.....	.....	6	1¼	13	1¼	26⅝	1½	F	20¾	.....	.....	...	20¾	.....	.....	...	139	79¾	244¾	34½	8¾
Indiana 51–5	3	¼	1½	.....	.....	10	1½	17½	1½	40½	1¾	F	65⅜	3	⅜	2	65⅜	3	⅜	2	152¼	87	260	37½	10½
Inter'l S–2000 lbs.–Sp. Tr	3	¼	1¼	1¼	V	9¾	2¼	17¾	2¼	30¼	1	F	38	2	⅜	2	36	2	⅜	2	88	.....	.....	34	.....
International 33–3000 lbs	4	¼	1¼	1¾	V	6¼	2½	6½	2½	43½	1½	F	43¾	2¼	⅜	2	43¾	2¼	⅜	2	101¾	57¼	194¾	34	11½
International 43–4000 lbs	4	¼	1¼	1¾	V	6¼	2½	6½	2½	43½	1½	F	50⅝	2¼	⅜	2	50⅝	2¼	⅜	2	109	59¼	202	32¼	11½
International 63–6000	4	¼	1¼	1¾	V	9	2½	14½	2	46	1¾	F	50⅝	2¼	⅜	2	50⅝	2¼	⅜	2	116⅛	67⅝	213⅞	34	11⅜
International 103	4	¼	1¼	1¾	V	9	2½	6¼	3	51	1¾	F	.....	.....	.....	...	.....	.....	.....	...	146	87⅝	244	34	12¾
Kelly-Springfield K70–1½–2	4	⅛	1¼	1	V	12¼	1½	16	1½	41⅜	1½	F	17⅜	2¾	⅜	4	17⅜	1⅞	⅜	4	132	81	230	34	10
Kelly-Springf'd K41–3½–5	4	¼	1¼	1	V	6¼	1⅝	24	1½	59⅝	1	V	3⅜	4½	¼	12	58	2½	⅜	2	144	87	248	36	9½
Kelly-Springf'd K61–5 to 7	4	¼	1¼	1	V	6¼	1⅝	24	1½	59⅝	1	V	3⅜	4½	¼	12	58	2½	⅜	2	144	87	248	36	9½
Kelly-Springfield K-75–2½	4	¼	1¼	1	V	7	1½	13	1½	41⅜	1½	F	3⅜	4½	¼	12	21¼	2½	⅜	4	138	85	238	34	9½
Kelly-Springfield K-76–2½	4	¼	1¼	1	V	7	1½	13	1½	41⅜	1½	F	17⅜	2⅜	⅜	4	17⅜	1⅞	⅜	4	138	85	238	34	9⅜
Kenworth O–1	4	⅛	1	.....	H	12½	1¼	18½	1¼	31	1½	F	17⅜	2⅜	⅜	4	18	2	⅜	4	120	77½	207½	.....	.....
Kenworth M–2	4	¼	1¼	.....	H	11½	2	17	1½	37	2	F	18	2	¼	4	22¼	2¼	¼	4	122	74	218	.....	.....
Kenworth KS–3	4	¼	1¼	.....	H	11½	2	17	1½	36	2	F	22¼	2¼	¼	4	22¼	2¼	¼	4	136	83	233	.....	.....
Kenworth L–4	4	¼	1¼	.....	H	11½	2	17	1½	36	2	F	20¾	4	¼	4	20¾	3	¼	4	150	89	243	.....	.....
Kenworth RS–5	4	¼	1½	.....	H	10	2	15	1½	37½	1½	V	68¾	3	¼	2	68¾	3	¼	2	160	96	250	.....	.....
King Zeitler 1	4	⅜	1	1⅜	V	11	1½	16	1½	40	1¼	F	11½	3¼	¼	4	11½	3¼	¼	4	Opt	Opt	Opt	32	10½
King Zeitler 1½	4	⅜	1	1⅜	V	11	1½	16	1½	40	1¼	F	12¾	3¼	¼	4	12¼	3¼	¼	4	Opt	Opt	Opt	32	10
King Zeitler 2½	4	⅜	1	1⅜	V	12	1½	16	1½	41	1½	F	13½	3½	¼	4	13½	3½	¼	4	Opt	Opt	Opt	32	10
King Zeitler 3½	4	¼	1¼	1⅜	V	12	1½	16	1½	42	1½	F	16	3¾	¼	4	16	3¾	¼	4	Opt	Opt	Opt	36	10¾
King Zeitler 5	4	¼	1½	1⅜	V	14	2	22	2	42	1½	F	18	4	¼	4	18	4	¼	4	Opt	Opt	Opt	36	10¼
Kissel 1 Ton	3	⅜	.....	1¼	.....	12¼	1¾	10	1½	46¾	2	F	11	3	¼	4	12	3¼	¼	4	102	58½	201..	34	.....
Kissel Utility 1½	3	⅜	.....	1¼	.....	12¼	1¾	10	1½	46¾	2	F	19	2	⅜	4	12	3¼	¼	4	120	70½	219..	34	.....
Kissel Freighter 2	3	⅜	.....	1¼	.....	12¼	1¾	10	1½	49	2	F	14	3½	¼	4	14	3½	¼	4	144	80	243..	34	.....
Kissel Heavy Duty 4	3	⅜	.....	1¼	.....	13¾	1¾	10	1½	52¼	2	F	14	3½	¼	4	14	3½	¼	4	156	94¾	251¼	36	.....
Kleiber 1½	4	⅛	1¼	.....	V	11	1½	13	1½	45½	1⅜	F	56	2½	¼	2	56	2½	¼	2	114	.....	.....	34	.....
Kleiber 2½	4	¼	1½	.....	V	12	1½	14	1½	47½	1⅜	F	13	3¼	¼	4	13	3¼	¼	4	150	.....	.....	34	.....
Kleiber 3½	4	¼	1½	.....	V	13	1½	14½	1½	47½	1⅜	F	14	3½	¼	4	14	3¼	¼	4	150	.....	.....	38	.....
Kleiber 5	4	¼	1¾	.....	V	14	1½	15	1½	48½	1¾	F	16	3¾	¼	4	16	3¾	¼	4	156	.....	.....	38	.....
Krebs J–24	4	¼	1	⅜	V	8	1½	17	1½	42	1½	F	18	4	¼	4	18	4	¼	4	171	.....	.....	38	.....
Krebs 50	4	¼	1¼	⅜	V	10	1½	17	1½	42	1½	F	11¼	2½	¼	4	11¼	2½	¼	4	119	64	214	33	10¾
Krebs K–45	4	¼	1¼	⅜	V	10	1½	17	1½	42	1½	F	13½	3½	¼	4	13½	3½	¼	4	122	60	222	33	9
Krebs 80	4	¼	1¼	⅜	V	11	1½	17	1½	44	2	F	12	3¼	¼	4	12	3¼	¼	4	122	60	222	33	10
Krebs L–75	4	¼	1¼	⅜	V	11	1½	17	1½	44	2	F	13½	3½	¼	4	13½	3½	¼	4	131	80	234	33¼	9
Krebs 100	4	¼	1¼	⅜	V	11	1½	17	1½	44	2	F	13½	3½	¼	4	13½	3½	¼	4	131	80	234	33¼	9
Krebs L–110	4	¼	1¼	⅜	V	11	1½	17	1½	44	2	F	16	3¾	¼	4	16	3¾	¼	4	131	87	234	38	10
Krebs 130	4	¼	1½	⅜	V	11	1½	17	1½	44	2	F	16	3¾	¼	4	16	3¾	¼	4	126	92	234	38	10
Krebs B–120	4	¼	1½	⅜	V	11	1½	17	1½	44	2	F	16	3¾	¼	4	16	3¾	¼	4	126	92	234	38	10
Lange F–3½	4	¼	1	1⅛	V	4	1½	14	1½	45	1½	F	13¾	3¾	¼	4	13¾	3¾	¼	4	159	104	251½	37	9½
Lange E–2½	4	¼	1	1⅜	V	7	1½	14	1½	42	1½	F	11½	3½	¼	4	11½	3½	¼	4	139	85	229	33	10
Lange G–1½	4	¼	1	1⅜	V	5½	1½	13	1½	40	1¼	F	12	3¼	¼	4	12	3¼	¼	4	114	73	205	33	9¾
Larrabee X2–1–1¼ Ton	3	⅜	1	1¾	V	6	1¼	14	1¼	34	1¼	F	50	2	¼	2	50	2	¼	2	108	59	205	34	11
Larrabee J4–1½–2¼ Ton	4	¼	1	1½	V	6½	1¼	10	1½	41	1¼	F	19	2	⅜	4	19	2	⅜	4	108	67½	199	34	10½
Larrabee K5–2½–3½ Ton	4	¼	1¼	1¾	V	6	1½	11	1½	45½	1½	F	21	2¼	¼	4	21	2¾	¼	4	Opt	Opt	Opt	34	9¾
Larrabee L4–3½–4½ Ton	4	¼	1¼	1¾	V	6	1½	11	1½	45½	1½	F	21	4	¼	4	21	3	¼	4	Opt	Opt	Opt	36	9
Maccar EX–1¼	3	⅜	1¼	⅜	V	4½	1½	15	1½	35½	1¼	F	50	2	⅜	2	48	2	⅜	2	101⅝	68	192½	37	9½
Maccar V–1, 2	4	¼	1¼	⅜	V	4	1¾	19	1½	35	2	F	11⅝	3¼	¼	4	11⅝	3¼	¼	4	138¾	79¾	243⅜	34	10½
Maccar H–1, 3	4	¼	1¼	⅜	V	4	1¾	19	1½	35	2	F	13⅜	3½	¼	4	13⅜	3½	¼	4	138¾	79¾	243⅜	34	9½
Maccar M–2, 4	4	¼	1¼	⅜	V	4	1¾	19	1½	35	2	F	14¾	3¾	¼	4	14¾	3¾	¼	4	156¾	91¾	263½	34	8½
Maccar G–1 ,5	4	¼	1½	⅜	V	8	1¾	16½	1¾	40¾	2	F	18	4	¼	4	18	4	¼	4	163⅞	99⅞	278	37½	10
Mack AB–1½,2,2½–T–Ch	3	⅜	1¼	1⅜	V	7½	1¼	5⅜	1¼	36⅝	1¼	F	11⅝	4	¼	2	16½	2½	¼	4	Opt	.....	.....	33¼	.....
Mack Dual R'd'n–1½,2,2½	3	⅜	1¼	1⅜	V	7½	1¼	5⅜	1¼	36⅝	1¼	F	11⅝	4	¼	2	12	6	¼	2	Opt	.....	.....	33¼	.....
Mack AB–Tractor–5	3	⅜	1¼	1⅜	V	7½	1¼	5⅜	1¼	36⅝	1¼	F	18¼	3½	¼	4	16½	2½	¼	4	Opt	.....	.....	33¼	.....
Mack AC–3½,5,6½,7½	3	¼	1½	1⅜	V	7½	1¼	5⅜	1¼	36⅝	1¼	F	11⅝	4	¼	4	20½	3½	¼	4	Opt	.....	.....	37½	.....
Mack AC-Trac.–7,10,13,15	3	¼	1½	1⅜	V	5	1¼	3¼	2	.....	.....	...	16½	3	¼	4	20½	3½	¼	4	Opt	.....	.....	37½	.....
Mason Road King	3	¼	1¼	.....	V	5	1¼	3¼	2	.....	1½	F	16½	3	¼	4	20½	3½	¼	4	Opt	.....	.....	37½	.....
Master 22–1½	4	⅛	1¼	1	V	11¾	2	14½	1½	.....	1½	F	42⅛	2¾	⅛	1	40⅝	2¾	⅛	1	130⅛	76	212	30	10
Master 41–2½	4	¼	1¼	1	V	13½	2	12½	1¼	30½	1	F	12	3¼	¼	2	12	3¼	¼	2	Opt	.....	.....	34½	.....
Master 51–3½	4	¼	1¼	1	V	13½	2	12½	1¼	31	1¼	F	13¼	3½	¼	2	13¼	3½	¼	2	117⅜	.....	.....	34	.....
Master 61–5	4	¼	1½	1	V	13½	2	15	1¼	35	2	F	16	3¾	¼	2	13¼	3¼	¼	2	147¾	.....	.....	36¾	.....
Master 64–5–6	4	¼	1½	1	V	13½	2	15	1½	35	2	F	13¼	4	¼	2	16	3¾	¼	2	162⅞	.....	.....	36¾	.....
Menominee Hurryton –1	3	⅛	1¼	1¾	V	6	1½	12	1¼	40	1¼	F	13¼	4	¼	2	18	4	¼	2	162⅞	.....	.....	39	.....
Menominee H–1½	3	¼	1¼	1¾	V	6	1½	12	1¼	40	1¼	F	48	2½	⅜	2	11	2½	⅜	2	102⅛	.....	197	33	10½
Menominee D–2	3	¼	1¼	1¾	V	3	1¾	3	1½	37¾	2	F	47⅛	2½	⅜	2	33¼	2½	⅜	2	122	.....	216	32	10⅜
Menominee HT–1¼	3	¼	1¼	1¾	V	6	1½	12	1¼	33¾	1¼	F	47⅛	2½	⅜	2	33¼	2½	⅜	2	146	.....	224	32	10⅜
Moreland RR–1	3	⅛	1	1¼	V	8	1½	11¼	1½	34	1¾	F	49	2½	⅜	2	46	2½	⅜	2	102⅜	.....	192	32	10⅜
Moreland BX–1½	3	¼	1	1¼	V	8	1½	11¼	1½	34	1¾	F	12	3¼	¼	4	12	3¼	¼	4	108	56⅛	208⅜	34	.....

Replacement Table—Continued

NAME, MODEL AND TONNAGE	ENGINE											BRAKE LINING								FRAME				
	Piston Rings		Carburetor			Upper Hose		Lower Hose		Fan Belt			Service				Emergency				Length				Width	
	No. per Cyl.	Width	Outlet Diameter	Inlet Diameter	Vertical or Horizontal	Length	Width	Length	Width	Length	Width	Type	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat	Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
Moreland EX–2	3	1/4	1 1/4	1 1/2	V	9	1 1/2	14	1 1/2	42	1 3/4	F	12	3 1/4	1/4	4	12	3 1/4	1/4	4	132	79 1/2	226 1/4	34	.....
Moreland AX–3	3	1/4	1 1/4	1 1/2	V	9	1 1/2	13	1 1/2	42	1 3/4	F	13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	174	101 1/4	253	34	.....
Moreland RX–5	4	1/4	1 1/2	1 3/4	V	8	1 1/2	14 1/2	1 1/2	42	2	F	15 1/2	3 3/4	1/4	4	15 1/2	3 3/4	1/4	4	192	115 1/4	271	38	.....
Moreland RC–Bus	3	1/4	1	1 1/4	H	8	1 1/2	11 1/4	1 1/2	24	1 1/2	F	49	2 1/2	1/4	2	46	2 1/2	1/4	2	156	100	256	34	7
Moreland EC–Bus	3	1/4	1 1/4	1 1/2	H	9	1 1/2	13	1 1/2	42	1 1/2	F	13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	152	102	254	34	8
Moreland AC–Bus	3	1/4	1 1/4	1 1/2	H	9	1 1/2	13	1 1/2	42	1 1/2	F	15 1/2	3 3/4	1/4	4	15 1/2	3 3/4	1/4	4	171	114 1/4	271	44	7
Nash 2018–1–1 1/2	4	1/4	1 1/4	1 1/4	....	3	1 1/2	7 3/4	1 1/4	36	1	F	49 1/8	2	1/8	2	20 1/8	2 1/2	1/8	1	104 1/2	61	193	30 1/2	9 1/4
Nash 3018–2–2 1/2	4	1/4	1 1/4	1 1/4	....	3	1 1/2	.....	.....	44	1	F	50 5/8	3	1/8	2	20 1/8	2 1/2	1/8	1	118 1/4	65	207	31 5/8	9 1/2
Nash 4017–2–2 1/2	3	1/4	1 1/4	1 1/4	....	7	1 1/2	.....	.....	44	2	F	49 1/2	2 1/2	1/4	4	25 1/16	2	1/4	1	117 3/8	85 1/2	202 1/2	38 1/8	14 3/4
National M	4	1/4	1	1/8	V	16	2 1/2	15	2 1/2	40	1 1/2	F	12	3 1/4	1/4	4	12	3 1/4	1/4	4	116	65	208	34	9 1/2
National T	3	1/4	1 1/4	1/8	V	12	1 1/2	18	1 1/2	40	1 3/4	F	13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	123 1/2	80 1/2	220	34	9 1/2
National NB–3 1/2	3	1/4	1 1/2	1/8	V	10	1 1/2	17	1 1/2	40	1 3/4	F	16	3 3/4	1/4	4	16	3 3/4	1/4	4	142	91	243	36	8 1/16
Nelson & LeMoon G–1	4	1/4	1	1/8	V	8	1 3/8	3 1/2	1 3/8	39 1/2	1 1/8	F	11 1/2	2 1/2	1/8	2	11 1/2	2 1/2	1/8	2	65	.....	.....	.....	11
Nelson & LeMoon G–1 1/2	4	1/4	1	1/8	V	8	1 3/8	3 1/2	1 3/8	39 1/2	1 1/8	F	11 1/2	3	1/8	2	11 1/2	3	1/8	2	Opt	.....	.....	.....	11
Nelson & LeMoon G–2	4	1/4	1 1/4	1/8	V	9	1 3/8	3 1/2	1 3/8	41 1/4	1 1/4	..	12	3 1/4	1/4	2	12	3 1/4	1/4	2	Opt	.....	.....	.....	11
Nelson & LeMoon G–3	4	1/4	1 1/4	1/8	V	9	1 3/8	3 1/2	1 3/8	41 1/4	1 1/4	..	13 1/2	3 1/2	1/4	2	13 1/2	3 1/2	1/4	2	Opt	.....	.....	.....	11
Nelson & LeMoon G–4	4	1/4	1 1/4	1/8	V	9	1 3/8	3 1/2	1 3/8	41 1/4	1 1/4	...	16 1/2	3 3/4	1/4	2	16 1/2	3 3/4	1/4	2	Opt	.....	.....	.....	11
Nelson & LeMoon G–5	4	1/4	1 1/2	1/8	V	12	2	6	2	40 1/2	2	...	18	4	1/4	2	18	4	1/4	2	Opt	.....	.....	.....	11
Netco DK–2	3	1/8	1 1/4	1 1/8	V	12	1 1/2	16	1 1/4	40 1/16	1 1/2	F	13 1/8	3 1/2	1/4	4	13 1/8	3 1/2	1/4	4	142	94	234 1/2	34 1/4	9
Netco HL–2 1/2–3	3	1/8	1 1/2	1 1/8	V	13	1 1/2	16	1 1/4	41 1/4	1 1/2	F	13 1/16	3 1/2	1/4	4	13 1/16	3 1/2	1/4	4	139 1/2	93 1/2	234 1/2	34 1/4	9
Noble A–76–1 1/2	4	1/8	1	1/8	V	10	1 3/4	12 1/2	1 1/4	33 1/2	1 1/2	F	47	2 1/2	1/4	2	45	2 1/2	1/4	2	100	58	191	34	.....
Noble A–21–1 1/2	4	1/8	1	1/8	....	10	1 3/4	12 1/2	1 1/4	33 1/2	1 1/2	F	19	2	1/4	2	19	2	1/4	2	102	74	203	34	.....
Noble B–31–2	4	1/8	1	1/8	....	7	1 3/8	16 1/2	1 1/4	34 1/4	1 3/8	F	43	2	1/4	2	43	2	1/4	2	126	80	221	34	.....
Noble D–52–3	4	1/4	1 1/4	1 1/8	....	9	2	12	1 1/4	34 1/4	1 3/8	F	21	2 1/4	1/4	4	21	2 1/4	1/4	4	.....	101	207	34	.....
Noble E–72–4	4	1/4	1 1/4	1 1/8	....	14 1/2	2	16	1 1/4	34 1/4	1 3/8	F	57	2 1/2	1/4	2	57	2 1/2	1/4	2	.....	114	218	36	.....
Northway B–2–2	3	1/8	1 1/8	1 3/4	V	5 1/4	2 1/4	13 1/8	1 1/4	46 11/16	5/8	V	50 1/2	2 1/4	1/4	2	50 1/2	2 1/4	1/4	2	133	62	223 1/2	33	9
Northway B–3–3 1/2	3	1/8	1 1/8	1 3/4	V	5 1/4	2 1/4	13 1/8	1 1/4	46 11/16	5/8	V	54	2 1/2	1/4	2	54	2 1/2	1/4	2	173	92	253 1/4	34 5/8	11
Ogden A–2–1	3	1/8	1	1	H	12	2	6	2	44	3/4	V	11	2 1/2	1/4	4	11	2 1/2	1/4	4	108	56	186	33 1/4	10 1/2
Ogden D–1 1/2	3	1/8	1	1	V	13	2	12	2	44	3/4	V	10 11/16	3	1/4	4	10 11/16	3	1/4	4	120	.....	.....	33 1/4	.....
Ogden E–2 1/2	3	1/8	1 1/4	2	V	10	1 1/8	14	1 1/8	30	1 1/4	F	52	2 1/4	1/4	1	52	2 1/4	1/4	1	144	.....	.....	33 1/4	.....
Ogden F–3 1/2	3	1/4	1 1/4	2	V	11	1/2	16	1 1/2	36	1 1/2	F	15 5/8	3 3/4	1/4	4	3/8	3 3/4	1/4	4	168	.....	.....	37	.....
Ogden G–5	3	1/4	1 1/2	3	V	9	2	18	2	40	2	F	11	6	1/4	2	25	4	1/4	4	168	.....	.....	37	.....
Oneida B9–2	3	1/8	1 1/4	1 1/2	H	9 1/2	1 1/4	9 1/2	1 1/4	38 1/2	2	F	48	2 1/2	1/8	2	34	2 1/2	1/8	2	114	.....	.....	34	.....
Oneida C9–2 1/2	3	1/8	1 1/4	1 1/2	H	9 1/2	1 1/4	9 1/2	1 1/4	38 1/2	2	F	58	2 1/2	1/8	2	43	2 1/2	1/8	2	138	.....	.....	34	.....
Oneida D9–3 1/2	3	1/4	1 1/4	1 1/2	H	7	1 1/2	9 1/2	1 1/2	40	2	F	16	3 3/4	1/8	4	16	3 1/4	1/8	4	155 3/4	.....	.....	36	.....
Oneida E9–5	3	1/4	1 1/4	1 1/2	H	7 1/2	1 3/4	9 1/2	1 1/2	40	2	F	18	4	1/8	4	18	4	1/8	4	177	.....	.....	38	.....
Oshkosh AW–2	3	1/8	1 1/4	1 1/2	H	16	2	17	2	33 1/4	1 1/4	F	23 5/8	3 1/2	1/4	1	43 1/2	2 1/2	1/8	2	108	75 5/8	189	34	.....
Oshkosh AAW–2	3	1/8	1 1/4	1 1/2	H	16	2	17	2	33 1/4	1 1/4	F	23 5/8	3 1/2	1/4	1	43 1/2	2 1/2	1/8	2	144	110 5/8	224	34	.....
Oshkosh BO–2 1/2	4	1/8	1 1/4	1 3/4	V	9 3/4	1 1/2	12	1 1/2	36 1/2	2	F	23 5/8	4 1/2	3/8	1	43 1/2	2 1/2	1/8	2	125	85 1/2	211	34	.....
Oshkosh BBO2 1/2	4	1/8	1 1/4	1 3/4	V	9 3/4	1 1/2	12	1 1/2	36 1/2	2	F	23 5/8	4 1/2	3/8	1	43 1/2	2 1/2	1/8	2	144	104 1/2	230	34	.....
Overland ½	4	1/8	1 1/8	1 3/8	H	.....	.....	.....	.....	.....	.....	...	.....	.....	.....	...	.....	.....	.....	...	31 1/4	29	127 1/4	26	9 1/2
Patriot 7R–1	3	1/8	1 1/8	3/4	H	8	2	9	2	39	1/4	F	40 1/2	1 3/4	1/8	1	40 1/2	1 3/4	1/8	1	93	56	184	33 1/4	11 3/4
Patriot 9–L–2	3	1/8	1 1/16	3/8	V	6	1 1/4	8	1 1/2	37	1 3/4	F	40 1/2	1 3/4	1/8	1	40 1/2	1 3/4	1/8	1	113	65	207	34	10
Patriot 11W–3	3	1/4	1 1/16	3/8	V	11	1 1/2	10	2	39	2	F	58	2 1/2	1/4	1	43	2 1/2	1/4	1	150	82	246	34	10
Penn 1	4	1/8	1 1/16	1 3/8	H	12	2 1/16	7 1/4	2 1/16	33 1/4	7/8	F	40	1 1/2	1/8	4	40	1 1/2	1/8	4	89	52	178	34	9 1/2
Penn 2	3	1/4	1	....	V	8	2 1/8	8	2 1/8	38	1	F	50 1/2	3	1/8	1	46 3/4	2	1/8	1	124	80	214	38	12
Pierce Arrow XA–2	3	1/8	1 1/16	1 5/8	V	16 3/8	2 3/8	14 1/4	2 1/8	43 1/2	1 1/2	F	15 1/8	3 3/4	1/4	4	15 1/8	3 3/4	1/4	4	125 1/16	70 11/16	225	34 1/2	8 1/8
Pierce Arrow XB–3	3	1/8	1 1/16	1 5/8	V	16 3/8	2 3/8	14 1/4	2 1/8	43 1/2	1 1/2	F	15 1/8	3 3/4	1/4	4	15 1/8	3 3/4	1/4	4	125 1/16	70 11/16	225	34 1/2	8 1/8
Pierce Arrow WC–4	3	1/8	1 11/16	1 7/8	V	11	2 3/8	15 1/2	2 1/8	43 1/2	1 1/2	F	9 11/16	6	1/4	2	18	4 3/4	1/8	4	133 1/4	78 3/4	237	38 1/2	7 11/16
Pierce Arrow RD–5–6	3	1/8	1 11/16	1 7/8	V	11	2 3/8	15 1/2	2 1/8	43 1/2	1 1/2	F	9 11/16	6	1/4	2	20 7/8	4 3/4	1/8	4	139 1/4	84 3/4	243	38 1/2	8 1/16
Pierce Arrow RF–7 1/2	3	1/8	1 11/16	1 7/8	V	11	2 3/8	15 1/2	2 1/8	43 1/2	1 1/2	F	9 11/16	6	1/4	2	20 7/8	4 3/4	1/8	4	139 1/4	84 3/4	243	38 1/2	8 1/16
Pierce Arrow XB–TT	3	1/8	1 1/16	1 5/8	V	16 3/8	2 3/8	14 1/4	2 1/8	43 1/2	1 1/2	F	15 1/8	3 3/4	1/4	4	15 1/8	3 3/4	1/4	4	77 1/16	48 11/16	172 1/2	34 1/2	8 1/8
Pierce Arrow RD–TT	3	1/8	1 11/16	1 7/8	V	11	2 3/8	15 1/2	2 1/8	43 1/2	1 1/2	F	9 11/16	6	1/4	2	18	4 3/4	1/8	4	77 1/4	48 3/4	173 5/8	38 1/2	7 11/16
Pierce Arrow RF–TT	3	1/8	1 11/16	1 7/8	V	11	2 3/8	15 1/2	2 1/8	43 1/2	1 1/2	F	9 11/16	6	1/4	2	20 7/8	4 3/4	1/8	4	77 1/4	48 3/4	173 5/8	38 1/2	8 1/16
Pioneer 59AA–1	3	1/8	1 1/4	1 1/2	V	13	2	12	2	35	1	F	14	1 3/4	1/8	4	14	1 3/4	1/8	4	102	.....	.....	30	.....
Power 1 1/2	3	1/8	1	....	V	8	1 1/4	10	1 1/4	36	1 1/2	F	11 3/4	3 1/4	1/4	4	11	3 1/4	1/4	4	.....	.....	.....	32	10 1/2
Power F–2 1/2	3	1/8	1	....	V	8	1 1/4	12 1/4	1 1/4	36	1 1/2	F	26 1/2	2	1/4	4	26 1/4	2	1/4	4	143	.....	.....	32	12
Power C–3 1/2	3	1/4	1 1/4	....	V	9	1 1/2	12	1 1/2	36	1 1/2	F	59	2 1/4	1/4	1	45	2 1/4	1/4	1	.....	.....	.....	36	12
Rainier R31–¾	3	1/8	1	1/8	V	9	2	6	2	43 3/4	5/8	V	11	2 1/2	1/4	4	11	2 1/2	1/4	4	86 1/2	50 3/8	181	34	11 1/4
Rainier R29–1	3	1/8	1	1/8	V	9	2	6	2	43 3/4	5/8	V	11	2 1/2	1/4	4	11	2 1/2	1/4	4	96 1/2	57 5/8	190 1/4	34	10 1/4
Rainier R36–1 1/2	4	1/8	1	1/8	V	8	1 1/2	14	1 1/2	40	1 1/4	F	11 3/4	3 1/4	1/4	4	11	3 1/4	1/4	4	111	72 1/4	206 1/2	34	9 1/8
Rainier R28–2–2 1/2	4	1/4	1 1/4	1/8	V	9 1/2	1 1/2	14	1 1/2	42	1 1/4	F	20	2 1/4	1/4	4	20	2 1/4	1/4	4	124 3/4	80 1/2	225	33	9 1/8
Rainier R20–2 1/2–3	4	1/4	1 1/4	1/8	V	9 1/2	1 1/2	14	1 1/2	42	1 1/4	F	13	3 1/2	1/4	4	13	3 1/2	1/4	4	137 1/2	85 1/2	241 3/4	33	10
Rainier R25–3 1/2–5	4	1/4	1 1/4	1/8	V	9 1/2	1 1/2	14	1 1/2	42	1 1/4	F	15 1/2	3 3/4	1/4	4	15 1/2	3 3/4	1/4	4	157 1/2	91	263 7/8	37	8 3/4
Rainier R27–6–7	4	1/4	1 1/2	1/8	V	9 1/2	1 1/2	14	1 1/2	42	1 3/4	F	18	4	1/4	4	18	4	1/4	4	154 1/2	88	263 7/8	37	9 1/2
Reo F-2500 lbs	3	1/8	1	1 1/2	V	5 1/2	1	5 1/2	1	39 1/16	1/8	F	45 7/8	3	1/8	2	40 1/8	3	1/8	2	81 1/16	55 3/4	171	30	9 3/4
Rowe CDW–2 1/2	3	1/4	1 1/4	1/8	V	18	1 3/4	16	1 1/2	37	2	...	20	2 1/4	1/4	4	20	2 1/4	1/4	4	139 1/2	81 1/4	224 3/4	33	9 3/4
Rowe GSW–3	3	1/4	1 1/4	1/8	V	18	1 3/4	16	1 1/2	37	2	...	20	2 1/4	1/4	4	20	2 1/4	1/4	4	139 1/2	81 1/4	224 3/4	33	9 3/4
Rowe HW–4	3	1/4	1 1/4	1/8	V	18	1 3/4	16	1 1/2	37	2	...	22	4	1/4	4	22	3	1/4	4	163 1/2	99	249 1/2	36	9
Rowe FW–5	3	1/4	1 3/8	1/8	V	11	1 3/4	17	1 3/4	43	2	...	68	3	1/4	2	60	3	1/4	2	175 1/2	107 3/4	265	38 1/2	10 1/2
Ruggles 15–¾	3	1/8	1	1/8	V	12 1/2	2	20	2	34 3/4	1 1/4	F	43 7/8	2	1/8	2	39	1 3/8	1/8	2	128	97 1/2	170	38 1/2	9 3/4
Ruggles 20R–1 1/4	3	1/4	1 1/4	1/8	V	7 1/2	2	13 1/2	1 1/4	35	1 1/2	F	48	2 1/2	1/8	2	46 5/8	2 1/4	1/8	2	96 5/8	55 3/8	186 3/4	34	11
Ruggles 20AR–1 1/4	3	1/4	1 1/4	1/8	V	7 1/2	2	13 1/2	1 1/4	35	1 1/2	F	48	2 1/2	1/8	2	46 5/8	2 1/4	1/8	2	104 1/2	65	194 3/4	34	11
Ruggles 40–2	3	1/4	1 1/4	1/8	V	7 1/2	2	13 1/2	1 1/4	35	1 1/2	F	47 1/2	2 1/2	1/8	2	33 1/4	2 1/2	1/8	2	134 1/4	75 1/2	224	34	8 1/4
Ruggles 40H–2 1/2	3	1/4	1 1/4	1/8	V	7 1/2	2	13 1/2	1 1/4	35	1 1/2	F	58	2 1/2	1/8	2	44	2 1/2	1/8	2	134 1/4	75 1/2	224	34	9 1/4
Sandow G–1	3	1/8	1 1/4	1	H	9	2	7	2	38 3/4	3/4	V	22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	96	.....	205	34	10 1/2
Sandow C–G–1 1/2	3	1/8	1 1/4	1	H	9	2	7	2	38 3/4	3/4	V	22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	120	.....	.....	34	10 1/2
Sandow J–2 1/2	3	1/8	1 1/2	1 1/4	V	7	1 1/4	13	1 1/4	39	1/8	F	11 3/4	3 1/2	1/4	4	11 3/4	3 1/2	1/4	4	Opt	.....	.....	32	10 1/2
Sandow M–3 1/2	3	1/8	1 3/4	1 1/4	V	9	1 1/2	13	1 1/4	40	1/8	F	13 1/2	4	1/4	4	11 3/4	3 1/2	1/4	4	Opt	.....	.....	37	11
Sandow L–5	...	...	...	...	...	...	...	...	...	...	...	...	13 1/2	4	1/4	4	11 3/4	3 1/2	1/4	4	Opt	.....	.....	37	11
Sanford W15–1 1/2	3	1/8	1	1	H	9	2 1/4	11	1 1/2	40	5/8	V	22 1/4	2 1/4	1/4	4	22 1/4	2 1/4	1/4	4	120	71 3/4	205 3/4	32	11
Sanford 25–2 1/2	3	1/8	1 1/4	1 1/4	V	8	1 1/2	11	1 1/2	46	1 1/2	F	22 1/4	2 1/8	1/4	4	22 1/4	2 1/4	1/4	4	144	109 1/2	238	35	9 3/4
Sanford 35–3 1/2	3	1/8	1 1/4	1 1/4	V	9	1 1/2	11	1 1/2	46	1 1/2	F	55 3/4	4	1/4	4	55 3/4	2 1/2	1/4	2	144	97 1/2	244	35	8 11/16
Sanford 50–5	3	1/8	1 1/4	1 1/4	V	9	1 1/2	11	1 1/2	46	1 1/2	F	65	2	1/4	2	65	2	1/4	2	144	97 1/2	244	35	10 1/2
Saurer 5AD–6 1/2	4	1/4	1 1/2	1 3/8	V	6	1 3/8	10	1 3/8	47 1/2	1 1/2	F	.....	.....	.....	...	.....	.....	.....	...	Opt	Opt	Opt	33 1/2	10
Schacht H–1 1/2	3	1/8	1 1/4	2	H	4 1/4	1 3/4	15	1 1/4	38	1 1/4	F	33	2 1/2	1/8	1	48	2 1/2	1/8	1	.....	.....	.....	31	.....
Schacht G–2–2 1/2–3	4	1/4	1 1/4	2	H	18	2	14	1 1/4	40	2	F	8 1/4	3	1/4	4	13 1/2	3 1/4	1/4	4	.....	.....	.....	35 3/4	.....
Schacht G–4–5	4	1/4	1 1/4	2	H	18	2	14	1 1/4	40	2	F	8 1/4	3	1/4	4	15	4	3/8	4	.....	.....	.....	35 3/4	.....
Selden 30C	4	1/8	1	1 1/16	V	6	1 1/2	11 1/2	1 1/2	41	1 1/4	F	11 1/8	3 1/4	1/4	4	11 1/8	3 1/4	1/4	4	114	71	198 1/2	34	.....
Selden 50B	4	1/4	1	1 1/16	V	8 3/16	1 1/2	14 3/4	1 1/2	39 1/4	1 1/2	F	13	3 1/2	1/4	4	13	3 1/2	1/4	4	136	82	227 3/4	34	.....

Replacement Table—Continued

NAME, MODEL AND TONNAGE	ENGINE												BRAKE LINING								FRAME				
	Piston Rings		Carburetor			Upper Hose		Lower Hose		Fan Belt			Service				Emergency				Length			Width	
	No. per Cyl.	Width	Outlet Diameter	★ Inlet Diameter	Vertical or Horizontal	Length	Width	Length	Width	Length	Width	Type	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat	Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
Selden 52	4	1/4	1 1/4	1 11/16	V	8 3/8	1 1/2	16 1/4	1 1/2	40 3/8	2	F	15 5/8	3 3/4	1/4	4	15 5/8	3 3/4	1/4	4	240	161	295	52	.....
Selden 53B	4	1/4	1 1/4	1 11/16	V	11 1/2	1 1/2	16 1/4	1 1/2	40 3/8	2	F	13	3 1/2	1/4	3	13	3 1/2	1/4	4	136	82	244	34	.....
Selden 70B	4	1/4	1 1/4	1 11/16	V	8 3/8	1 1/2	16 3/4	1 1/2	40 3/8	2	F	15 5/8	3 3/4	1/4	4	15 5/8	3 3/4	1/4	4	155	91	253 1/4	37 1/2	.....
Selden 73B	4	1/4	.....	.....	V	9	1 3/4	14 3/4	1 1/2	40 3/8	2	F	.....	.....	.....	.....	.....	.....	.....	.....	155	91	.....	.....	.....
Selden 90B	4	1/4	1 1/2	1 11/16	V	7	1 3/4	16 3/4	1 1/2	40 3/8	2	F	17 11/16	4	1/4	4	17 11/16	4	1/4	4	153	89	256 1/4	37 1/2	.....
Service 25F–1	4	3/16	1	1/4	V	12 1/2	1 3/4	10	1 1/4	32 3/8	1 1/2	F	20	2	3/16	4	20	2	3/16	4	106 3/4	65 3/4	203 1/2	32	7 1/4
Service 25C–1 1/2	4	3/16	1	1/4	V	12 1/2	1 3/4	10	1 1/4	32 3/8	1 1/2	F	20	2	3/16	4	20	2	3/16	4	61	50 3/4	157	32	8
Service 34–1 1/2	4	1/4	1 1/4	1/4	V	8	1 3/4	10	1 1/4	38		3/4 V	11 3/4	3 1/4	1/4	4	11 3/4	3 1/4	1/4	4	121	82 1/4	216 1/2	34	10 3/4
Service 61–2 1/2	4	1/4	1 1/4	1/4	V	10	2	10	1 1/4	38		3/4 V	13 1/2	3 1/2	1/4	4	13 1/2	3 1/2	1/4	4	127 3/4	92 1/4	226 1/2	34	10
Service 81–3 1/2	4	1/4	1 1/4	1/4	V	10	2	11 1/2	1 1/4	40 3/4		3/4 V	15 1/2	3 3/4	1/4	4	15 1/2	3 3/4	1/4	4	144	100 1/4	245 3/4	38	8 1/2
Service 103–5	4	1/4	1 1/4	1/4	V	10	2	11 1/2	1 1/4	40 3/4		3/4 V	18	4	1/4	4	18	4	1/4	4	144	100 3/4	245 3/4	38	10
Standard 75–1 1/4	3	1/4	1	1 1/4	V	10 1/2	2 1/4	14 3/4	1 1/4	39 1/4	1 1/4	F	11 3/4	2 1/2	1/4	4	11 3/4	2 1/2	1/4	4	108	62 1/2	198	32	9 3/4
Standard 1 1/2 K–1–1 1/2	3	1/4	1	1 1/4	V	10 1/2	2 1/4	14 3/4	1 1/4	39 1/4	1 1/4	F	10 7/8	3	1/4	4	10 7/8	3	1/4	4	120	72 1/2	210	32	9 1/4
Standard 2 1/2 K–2 1/2–3	3	1/4	1 1/4	1 11/16	V	10	1 7/8	16	1 7/8	40 7/8	1 1/2	F	13 1/4	3 1/2	1/4	4	13 1/4	3 1/2	1/4	4	132	83	220 3/8	32	12
Standard 3 1/2 K–3 1/2–5	3	1/4	1 1/4	1 11/16	V	10	1 7/8	16	1 7/8	41 1/2	1 1/2	F	15 5/8	3 3/4	1/4	4	15 5/8	3 1/4	1/4	4	144	93 3/4	240	38	9 1/2
Standard 5K–5–7	3	1/4	1 1/2	1 11/16	V	8	1 7/8	3 1/2	1 7/8	42 1/4	1 3/4	F	17 11/16	4	1/4	4	17	4	1/4	4	144	93 3/4	244 1/2	38	9
Sterling 1 1/2	3	1/4	1 1/4	1/4	V	10	1 1/2	19	1 1/2	38	1 1/2	F	11 1/16	3 1/4	1/4	4	11 1/16	3 1/4	1/4	4	120	70	216	34	.....
Sterling 2	3	1/4	1 1/4	1/4	V	10	1 1/2	19	1 1/2	38	1 1/2	F	13 3/8	3 1/2	1/4	4	13 3/8	3 1/2	1/4	4	120	70	216	34	.....
Sterling 2 1/2	3	1/4	1 1/4	1/4	V	10	1 1/2	19	1 1/2	38	1 1/2	F	13 3/8	3 1/2	1/4	4	13 3/8	3 1/2	1/4	4	138	84	234	34	.....
Sterling 3 1/2	3	1/4	1 1/2	1/4	V	13 1/2	1 1/2	22	1 1/2	40 1/2	1 1/2	F	15 1/8	3 3/4	1/4	4	15 1/8	3 3/4	1/4	4	144	85	245	38	.....
Sterling 5–Worm	3	1/4	1 1/2	1/4	V	10	1 1/2	19	1 1/2	40 1/2	1 1/2	F	17 3/4	4	1/4	4	17 3/4	4	1/4	4	158	91	259	38	.....
Sterling 5–Chain E.H.D	3	1/4	1 1/2	1/4	V	10	1 1/2	19	1 1/2	40 1/2	1 1/2	F	56 1/16	3 1/2	1/4	2	29 11/16	4	1/4	1	158	97	259	38	.....
Sterling 5–Ch. E.L.D	3	1/4	1 1/2	1/4	V	13 1/2	1 1/2	22	1 1/2	40 1/2	1 1/2	F	56 1/16	3 1/2	1/4	2	29 11/16	4	1/4	1	158	97	259	38	.....
Sterling 7 1/2	3	1/4	1 1/2	1/4	V	10	1 1/2	19	1 1/2	40 1/2	1 1/2	F	56 1/16	3 1/2	1/4	2	29 11/16	4	1/4	1	158	97	259	38	.....
Stewart M15–1 1/4	3	1/4	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	41 3/4	2	1/4	2	22 3/4	2	1/4	1	99 1/2	.....	.....	38	.....
Stewart M9–1 1/2	3	1/4	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	48 1/2	2	1/4	2	8	5	1/4	2	119 1/4	.....	.....	32	.....
Stewart M7X	3	1/4	.....	1 1/4	.....	.....	.....	.....	.....	.....	.....	.....	50 5/8	2	1/4	2	8	5	1/4	2	132 3/4	.....	.....	32	.....
Stewart M10X	3	1/4	.....	1 5/8	.....	.....	.....	.....	.....	.....	.....	.....	60	3	1/4	2	8	5	1/4	2	138	.....	.....	32	.....
Super Truck 50	3	1/4	1 1/4	1 11/16	V	18 1/2	1 3/4	19	1 1/2	37 1/2	1 1/8	F	51 1/2	2 1/4	1/4	2	51 1/2	1 1/4	1/4	2	135	84	243	36	9 1/4
Super Truck 70	3	1/4	1 1/4	1 11/16	V	18 1/2	1 3/4	19	1 1/2	37 1/2	1 1/8	F	55 1/2	2 1/2	1/4	2	55 1/2	2 1/4	1/4	2	144	97 1/8	249	34	10 3/4
Super Truck 100	3	1/4	1 1/2	1 11/16	V	6	1 3/4	19	1 3/4	42	1 1/8	F	68	3	1/4	2	51 1/2	3	1/4	2	144	97 1/8	249	34	10
Traffic C–4000	3	1/4	1	1/4	H	10 1/2	2	10 1/2	2	41 1/4	1 1/4	F	43 1/2	2 1/2	1/4	2	38	1 3/4	1/4	2	120 3/4	67 3/4	213 1/8	42	10 3/4
Traffic 6000	3	1/4	1	1/4	H	10 1/2	2	10 1/2	2	41 1/4	1 1/4	F	52	3	1/4	2	47	2	1/4	2	120 3/4	69 3/4	213 1/8	34	11 3/4
Traffic Speedboy	3	1/4	1	1/4	H	10 1/2	2	10 1/2	2	41 1/4	1 1/4	F	43 1/2	2 1/2	1/4	2	38	1 3/4	1/4	2	86	53 1/8	174	34	11 3/4
Transport 15–1	3	1/4	1	1	H	10 3/4	2	13	2	40 3/8	1 1/4	F	48	2 1/2	1/4	2	46 5/8	2 1/4	1/4	2	98 1/16	57 3/8	188	34	10
Transport 26–1 1/2	4	1/4	1	1	V	9 1/4	2	13	1 1/4	34 1/8	1 3/4	F	48 1/2	2	1/4	2	46 1/2	1 1/2	1/4	2	113 7/8	70 1/4	201	34	10
Transport 36–2	4	1/4	1 1/4	1 1/4	V	10 3/4	2	16	1 1/4	33 1/2	2	F	10 3/4	3 1/2	1/4	2	46 1/2	1 1/2	1/4	2	120 1/4	72 3/4	210	34	11
Transport 61–3 1/2	4	1/4	1 1/4	1 1/4	V	9 1/4	2	16	1 1/4	33 1/2	2	F	11 7/8	3	1/4	4	48 1/2	2 1/2	1/4	2	127 3/8	78 1/8	218	34	11
Transport 75–5	4	1/4	1 1/4	1 1/4	V	12	2	16	1 1/4	35 1/8	2	F	11 7/8	3	1/4	4	58	2 1/2	1/4	2	150 1/8	93 1/8	251 1/2	36 1/2	10 1/2
Traylor B	4	1/4	1	.....	V	10	2	6	1 1/4	38	1	F	50	2	1/4	2	50	2	1/4	2	117	75	204 1/4	34	10
Traylor C	4	1/4	1 1/4	.....	V	12	2	12	1 1/4	36	2	F	50	2	1/4	2	50	2	1/4	2	122	73 1/2	218 3/4	34	10 1/2
Traylor D	4	1/4	1 1/4	.....	V	12	2	12	1 1/4	36	2	F	56 1/2	2 1/4	1/4	2	56 1/2	2 1/4	1/4	2	142	76	241 1/2	34	9 3/4
Traylor F	4	1/4	1 1/4	.....	V	14	2	14	1 1/4	37	2	F	59	2 1/2	.....	2	59	2 1/2	.....	2	165	92 1/2	273 1/4	35	11
Triangle AA–1	3	1/4	1	1	H	17	2	17	2	34	1	F	22 1/2	1 1/4	1/4	1	48	2 1/2	1/4	2	94	53	177	35	10
Triangle A–2	4	1/4	1	1	V	14	1 1/4	14 1/2	1 1/4	39 1/4	1 1/2	F	7 1/2	4	1/4	2	49	2	1/4	2	126	77 1/2	225	34	12
Triangle B–3	3	1/4	1 1/4	1 1/4	V	9	1 1/2	18	1 1/4	39 1/4	1 1/2	F	7 1/2	4	1/4	2	52	3	1/4	2	132	84 1/2	217 1/2	34	9
Triangle C–2 1/2	4	1/4	1	1	V	14	1 1/4	14 1/2	1 1/4	39 1/4	1 1/2	F	7 1/2	4	1/4	2	52	3	1/4	2	129	81	219 1/4	34	12
Union FW–2 1/2	3	1/4	1 1/4	1 1/4	V	20	1 3/4	19 1/2	1 1/2	37 1/2	2	F	27	4 1/2	1/4	1	52	3	1/4	1	133 1/2	77 3/4	224	32	11 1/2
Union H–4	3	1/4	1 1/4	1 1/4	V	20	1 3/4	19 1/2	1 1/2	37 1/2	2	F	56 3/4	3 1/2	1/4	1	32	4 1/2	1/4	1	157 1/2	.....	.....	34	.....
Union HW–4	3	1/4	1 1/4	1 1/4	V	20	1 3/4	19 1/2	1 1/2	37 1/2	2	F	27	4 1/4	1/4	1	24	4	1/4	2	157 1/2	98	264	34	13 1/2
United 25	3	1/4	1 1/4	1/4	V	10	2	13 1/2	2	32 3/4	1/2	F	48	2 1/2	1/4	2	46 5/8	2 1/4	1/4	2	91 1/8	53 5/8	182	33	9 3/4
United 30	3	1/4	1 1/4	1/4	V	10	2	13 1/2	2	32 3/4	1 1/2	F	48	2 1/2	1/4	2	46 5/8	2 1/4	1/4	2	115 5/8	75 5/8	206	33	10 1/2
United 35	3	1/4	1 1/4	1/4	V	10	2	13 1/2	2	32 3/4	1 1/2	F	47 1/4	2 1/2	1/4	2	33 1/4	2 1/2	1/4	2	115 5/8	76 5/8	206	33	9
United 50	3	1/4	1 1/4	1/4	V	10	2	13 1/2	2	32 3/4	1 1/2	F	47 1/4	2 1/2	1/4	2	33 1/4	2 1/2	1/4	2	115 5/8	80 5/8	226	33	8 1/2
United 60	3	1/4	1 1/4	1/4	V	10	2	13 1/2	2	32 3/4	1 1/2	F	57 1/2	2 1/2	1/4	2	42 1/2	2 1/2	1/4	2	132 5/8	80 5/8	226	33	8 1/2
United 80	4	1/4	1 1/4	1/4	V	8 5/8	2	13 3/4	1 1/2	42	2	F	60	3	1/4	2	60	3	1/4	2	141 5/8	81 1/4	237 1/8	34	9 1/8
U.S.U.–1 1/4	4	1/4	1	1/8	V	11 1/2	1 3/4	11 1/2	1 1/4	33	1 1/8	F	50 1/2	2 1/2	1/4	2	20	1 1/2	1/4	4	108	70	195	32	9 1/4
U.S.N.–1 1/2	3	M	1	1/8	H	11 1/2	2	9	1 1/4	37	1 1/8	F	50 1/2	2 1/2	1/4	2	46 1/2	1 1/2	1/4	2	120	82	211	34	11
U.S.N.W. 24–2	4	1/4	1	1/8	H	10 3/4	1 3/4	11 1/2	1 1/4	33	1 1/8	F	21	2 1/4	1/4	4	21	2 1/4	1/4	4	120	82	211	34	11
U.S.R.–2 1/2–3	3	1/4	1 1/4	1/8	V	10	1 1/4	10	1 1/4	35	1 1/8	F	21	2 1/4	1/4	4	21	2 1/4	1/4	4	144	94	241	34	9 1/4
U.S.S.–3 1/2–4	3	1/4	1 1/4	1/4	V	9	1 1/2	8	1 1/2	37	1 1/4	F	21	4	1/4	4	21	3	1/4	4	156	104	258	36	9
U.S.T. 5–7	4	1/4	1 1/2	1/4	V	15	2	13	1 1/2	38 3/4	2	F	62	3	1/4	4	33	4	1/4	1	168	103	278	36	10 1/2
U.S.S. Spec. 4–5	3	1/4	1 1/4	1/4	V	9	1 1/2	8	1 1/2	37	1 1/4	F	21	4	1/4	4	21	3	1/4	4	156	104	258	36	.....
Victor 25–1 1/4	3	1/4	1 3/8	1 5/8	V	10	2	14 1/2	2	33 3/4	1 1/2	F	22	2 1/2	1/4	4	23	2 1/2	1/4	1	90 3/4	54	186 3/4	34	10
Victor 40–1 1/2	3	1/4	1 3/8	1 5/8	V	8 1/2	2	12 1/2	1 1/2	33 3/4	1 1/2	F	48	2 1/2	1/4	2	35	2 1/2	1/4	2	105 1/8	66 5/8	194 3/8	34	9 1/2
Victor 50–2	3	1/4	1 3/8	1 5/8	V	8 1/2	2	12 1/2	1 1/2	33 3/4	1 1/2	F	49	2 1/2	1/4	2	35	2 1/2	1/4	2	111 1/8	75 5/8	200 3/8	34	9 1/2
Victor 60–2 1/2	3	1/4	1 3/8	1 5/8	V	8 1/2	2	12 1/2	1 1/2	33 3/4	1 1/2	F	59	2 1/2	1/4	2	44 1/4	2 1/2	1/4	2	130 7/8	90 5/8	216 3/8	34	9 1/2
Victor 70–2 1/2	3	1/4	1 3/8	1 5/8	V	8 1/2	2	12 1/2	1 1/2	33 3/4	1 1/2	F	59	2 1/2	1/4	2	44 1/4	2 1/2	1/4	2	130 7/8	90 5/8	216 3/8	34	9 1/2
Victor 80–3 1/2	4	1/4	1 3/8	1 5/8	V	10	1 1/2	12 1/2	1 1/2	44 3/4	1 1/2	F	59	2 1/2	1/4	2	44 1/4	2 1/2	1/4	2	145	88 3/4	238	36	10 1/2
Victor 85–5	4	1/4	1 3/8	1 5/8	V	10	1 1/2	12 1/2	1 1/2	44 3/4	1 1/2	F	71	2 1/2	1/4	2	55	2 1/2	1/4	2	145	88 3/4	238	36	9
Victor 90–6	4	1/4	1 3/8	1 5/8	V	.....	1 1/2	.....	1 1/2	.....	.....	.....	71	2 1/2	1/4	2	55	2 1/2	1/4	2	145	88 3/4	243	36	11
Wachusett S–1	3	1/4	1 1/4	1/4	V	9 1/2	1 1/4	11	1 1/4	31 1/2	1 1/4	F	11 1/4	2 1/2	1/4	2	11 1/4	2 1/2	1/4	2	115	74	212	33	.....
Wachusett J–1 1/2	4	1/4	1 1/4	1/4	V	10	1 1/2	10 1/2	1 1/2	36	1 1/16	F	11	3	1/4	2	11	3	1/4	2	121	76	212	33	.....
Wachusett K2	4	1/4	1 1/4	1/4	V	11	1 1/2	11	1 1/2	40 1/2	1 1/16	F	11 3/4	3 1/4	1/4	2	11 3/4	3 1/4	1/4	2	145	78	240	33	.....
Wachusett L2 1/2	4	1/4	1 1/4	1/4	V	10	1 1/2	11	1 1/2	41 1/2	1 1/16	F	13 1/2	3 1/2	1/4	2	13 1/2	3 1/2	1/4	2	144	94	241	33	.....
Walker 12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	2 1/2	1/4	8	72	.....	.....	32	.....
Walker 15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	45 1/2	2 1/2	1/4	2	16	2	1/4	4	90	.....	.....	32	.....
Walker P–3 1/2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	53 1/4	3	1/4	2	19 1/4	2 1/2	1/4	4	140	.....	.....	35	.....
Walker N–5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	53 1/4	3	1/4	2	19 1/4	2 1/2	1/4	4	162	.....	.....	35	.....
Walker 22	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	45 1/2	2 1/2	1/4	2	16	2	1/4	4	99	.....	.....	32	.....
Walker 42	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	53 1/4	3	1/4	2	19 1/4	2 1/2	1/4	4	120	.....	.....	32	.....
Walter F	3	1/4	1 1/2	2	V	10	1 1/2	18	1 1/2	39	1 1/2	F	30	5	1/4	4	57	2 1/2	1/4	2	Opt	.....	.....	36	14
Ward LaFr'e 2B–2 1/2–3 1/2	3	1/4	1 1/4	1 1/2	V	7	1 1/2	16	1 1/2	41 1/2	1 1/2	F	13	3 1/2	1/4	4	13	3 1/2	1/4	4	137 1/2	.....	.....	33	.....
Ward LaFrance 4A–3 1/2–5	3	1/4	1 1/4	1 1/4	V	8 1/2	1 1/2	18	1 1/2	41 1/2	1 1/2	F	15 1/2	3 3/4	1/4	4	15 1/2	3 3/4	1/4	4	170 1/4	.....	.....	37	.....
Ward LaFrance 5A–5–7	3	1/4	1 1/2	1 1/4	V	9 1/4	1 1/2	18	1 1/2	41 1/2	1 1/2	F	18	4	1/4	4	18	4	1/4	4	170 1/4	.....	.....	37	.....
White 15A–Taxi	3	1/4	1	1/8	V	7 1/4	1	6 1/2	1 1/4	38	1 1/4	F	46	2 1/2	1/4	2	41 1/4	2 1/2	1/4	2	55 3/4	43 1/2	149 1/4	34	8 1/4
White 15–3/4	3	1/4	1 1/4	1 11/16	V	7 1/4	1	6 1/2	1 1/4	38	1 1/4	F	46	2 1/2	1/4	2	41 1/4	2 1/2	1/4	2	85 1/2	58	179	34	10 1/2
White 15–45–3/4	3	1/4	1 1/4	2	V	13 1/2	1 1/2	12	1 1/2	40 5/8	2	F	53 7/8	2 1/2	1/4	2	50 1/8	2 1/2	1/4	2	85 3/8	57 1/8	189	34	10 1/2
White 20–2	3	1/4	1 1/4	1 11/16	V	7 1/4	1	7 1/4	1 1/4	38	1 1/4	F	55 1/2	3 1/2	1/4	2	50 1/8	3 1/2	1/4	2	146	92 1/2	239 1/2	34	9 1/4

Replacement Table—Continued

NAME, MODEL AND TONNAGE	ENGINE												BRAKE LINING								FRAME				
	Piston Rings		Carburetor			Upper Hose		Lower Hose		Fan Belt			Service				Emergency				Length			Width	
	No. per Cyl.	Width	Outlet Diameter	Inlet Diameter	Vertical or Horizontal	Length	Width	Length	Width	Length	Width	Type	Length	Width	Thickness	No. of Pieces	Length	Width	Thickness	No. of Pieces	Back of Driver's Seat	Driver's Seat to Center of Rear Axle	Over All	Over All	Clearance at Lowest Point of Chassis
White 20-D-2	3	1/4	1 1/16	1 11/16	V	7 1/4	1	7 1/4	1 1/4	38	1 1/4	F	55 1/2	3 1/2	1/4	2	50 7/8	3 1/2	1/16	2	98	70	191 1/2	34	9 1/16
White 20-45-2	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	40 5/8	2	F	11 3/8	4	1/16	4	50 7/8	3 1/2	1/16	2	107 1/2	82	214 1/4	34	9 1/16
White 50A-Bus	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	45 3/4	2	F	11 3/8	4	1/16	4	50 7/8	3 1/2	1/16	2	168	112	274 3/4	74*	10 1/16
White 40-3 1/2	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	45 3/4	2	F	11 3/8	4	1/16	4	25 7/8	5	1/16	4	164	106 1/2	267 1/2	42 1/2	10 1/4
White 40-D-3 1/2	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	45 3/4	2	F	11 3/8	4	1/16	4	25 7/8	5	1/16	4	118	88 1/2	222 1/2	42 1/2	10 1/4
White 45-5	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	45 3/4	2	F	11 3/8	5	1/16	4	25 7/8	5	1/16	4	164	106 1/2	267 1/2	42 1/2	10 1/4
White 45-D-5	3	1/4	1 1/16	2	V	13 1/2	1 1/2	12	1 1/2	45 3/4	2	F	11 3/8	5	1/16	4	25 7/8	5	1/16	4	119	88 1/2	222 1/2	42 1/2	10 1/4
Wilcox AA-1	3	1/4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	47 1/16	2 1/2	1/16	2	33 1/4	2 1/2	1/16	2	96	.....	.....	34	.....
Wilcox B-1 1/2	3	1/4	1 1/4	.....	.....	.....	.....	.....	.....	.....	.....	.....	47 1/16	2 1/2	1/16	2	33 1/4	2 1/2	1/16	2	132	.....	.....	33	.....
Wilcox C-2 1/2	3	1/4	1 1/4	.....	.....	.....	.....	.....	.....	.....	.....	.....	57 1/2	2 1/2	1/16	2	42 1/2	2 1/2	1/16	2	141	.....	.....	33	.....
Wilcox E-3 1/2	3	1/4	1 1/4	.....	.....	.....	.....	.....	.....	.....	.....	.....	57 1/2	2 1/2	1/4	2	42 1/2	2 1/2	1/4	2	156	.....	.....	33	.....
Wilcox F-5	3	1/4	1 1/2	.....	.....	.....	.....	.....	.....	.....	.....	.....	69 3/8	3 1/2	1/4	2	52	3 1/2	1/4	2	148 1/2	.....	.....	36	.....
Witt-Will P-2	3	1/4	1 1/4	1 1/4	V	8	1 1/2	12	1 1/4	31	1 1/4	F	48	3 1/4	1/4	4	48	3 1/4	1/4	4	.....	78	223	32	10
Witt-Will SS-3	3	1/4	1 1/4	1 1/4	V	8	1 1/2	12	1 1/4	41	1 1/2	F	52	3 1/2	1/4	4	52	3 1/2	1/4	4	156	108	242	32	10
Witt-Will N-1 1/2	3	1/4	1 1/4	1 1/4	V	8	1 1/2	12	1 1/4	31	1 1/4	F	48	3 1/4	1/4	4	48	3 1/4	1/4	4	137	78	226	32	10
Witt-Will S-2 1/2	3	1/4	1 1/4	1 1/4	V	8	1 1/2	12	1 1/4	41	1 1/2	F	52	3 1/2	1/4	4	52	3 1/2	1/4	4	137	78	226	32	10
Yellow Cab M22	3	1/4	1	1 1/2	V	8 1/4	2	10 1/16	2	38 1/2	5/8	V	49	2 1/2	1/4	2	45	2 1/2	1/4	2	60	.....	.....	43	.....
Yellow Cab M42-1 1/4	3	1/4	1	1 1/2	V	8 1/4	2	10 1/16	2	38 1/2	5/8	V	21 3/4	3	1/4	4	11	3	1/4	2	92	.....	.....	32	.....
Yellow Cab Express T1	3	1/4	1	1 1/2	V	9 1/2	2	9 1/2	2	39 1/4	3/4	V	21 3/4	3 1/2	1/4	4	11 1/2	2 1/2	1/16	2	94 7/8	61 1/4	181 3/8	34 1/2	.....

With Proper Equipment and With the Knowledge of Experience Anything Movable Can be Moved

C. Bowen, Boston, Mass, machinery mover and general motor transporter, is equipped to meet any contingency. A Fruehauf trailer outfit with a rated carrying capacity of 14 tons is one of Bowen's units and is shown carrying a 24,000 lb. girder, 79 ft. long and 7 ft. wide. The other job is still heavier and will cope with any requirement up to 50 tons.

The Motor Truck Continues to Get Business

Motor truck transportation is rapidly depleting the freight revenues of the Long Island Railroad, General Freight Agent Donald Wilson testified in the Eastern class rate investigation, being conducted by Commissioner Eastman of the Interstate Commerce Commission, when hearings were recently resumed.

Keen competition between the two mediums of transportation has compelled the railroad company to inaugurate a motor auxiliary to its present freight service, he said. Higher class rates were necessary, Mr. Wilson declared, to make the present rates uniform, but even if they were granted his line, they would not meet competition with the motor trucks.

He supported the proposal of the Trunk Line Association for a reconstructed class rate structure, but submitted his own proposal that carried substantial increases in the present arbitraries as based on the Disque scale of arbitraries.

New Bus Body Material

A city type bus body built of Duralumin is being mounted on a Mack bus chassis in Los Angeles. Duralumin is the new material, light as aluminum and having the strength of steel that was used in the construction of the dirigible Shenandoah.

Headquarters of the A. E. R. A. Changed

The new office headquarters of the American Electric Railway Association has been changed. It is now located at 292 Madison Ave., New York City, and occupies the entire fourteenth floor of the Johns-Manville building. This announcement was recently made by J. W. Welsh, Executive Secretary of the Association.

Branch Managers and Leading Distributors of the Wood Hydraulic Hoist & Body Company. Recently Gathered in Conference to Discuss General Business Conditions. A Bright Outlook for Business in General as Well as for the Company is Anticipated for 1925, See Page 29 for Further Details.

Manufacturers and Models Included in the Specification Tables

List Includes Manufacturers of Buses and Electric Trucks

Trade Name	Capacity	Name	Address	How Manufacturer Sells: Nationally	Locally	Branches	Distributors	Dealers
Ace	2½-Bus	American Motor Truck Co.	Newark, Ohio	.....	Yes	.....	.....	.....
Acme	1, 1½, 2, 2½, 3, 4, 5, 6¼-Bus	Acme Motor Truck Co.	Cadillac, Mich.	Yes	No	No	Yes	Yes
Acorn	2½, 4	Acorn Motor Truck Co.	Chicago, Ill.	No	Yes	No	No	No
American-La France	2½, 3½, 5, 6, 7-T. T.	American-La France Fire Engine Co.	Elmira, N. Y.	Yes	.....	Yes	No	Yes
Armleder	1½, 2½, 3½ T. T.	O. Armleder Motor Truck Co.	Cincinnati, Ohio	Yes	.....	1-N. Y. State only	.....	.....
Atterbury	1½, 2½, 3½, 5	Atterbury Motor Car Co.	Buffalo, N. Y.	Yes	No	No	Yes	Yes
Autocar	1, 1¼, 1½, 2, 2½, 3, 5, T. T.	Autocar Co.	Ardmore, Pa.	Yes	.....	Yes	.....	Yes
Available	1½, 2, 2½, 3½, 5	Available Truck Co.	Chicago, Ill.	No	Yes	No	.....	.....
Bessemer	1, 1½, 2½	Bessemer Motor Truck Co.	Plainfield, N. J.	.....	.....	.....	.....	.....
Bethlehem	1, 2, 2½, 3½	Bethlehem Motors Corp.	Allentown, Pa.	.....	.....	.....	.....	.....
Betz	1, 2½,	Betz Motor Truck Co.	Hammond, Ind.	No	Yes	.....	No	No
Biederman	1, 1¼, 1½, 2½, 3½, 5	Biederman Motors Co.	Cincinnati, Ohio	.....	.....	.....	.....	.....
Bridgeport	1½, 2½, 4-Bus	Bridgeport Motor Truck Corp.	Stratford, Conn.	Yes	Yes	Yes	Yes	Yes
Brinton	1½, 2½	Brinton Motor Truck Co.	Philadelphia, Pa.	.....	.....	.....	.....	.....
Brockway	1, 1¼, 2, 2½, 3, 3½, 4, 5-Bus	Brockway Motor Truck Corp.	Cortland, N. Y.	Yes	.....	Yes	Yes	Yes
C. T. Elec.	½, ¾, 1, 2, 3, 3½, 5	Commercial Truck Co.	Philadelphia, Pa.	Yes	No	Yes	Yes	Yes
Casco	1	Casco Motors, Inc.	Sanford, Me.	No	Yes	.....	.....	.....
Chevrolet	½, 1	Chevrolet Motor Co.	Detroit, Mich.	.....	.....	.....	.....	.....
Clinton	1¼, 2, 3, 4, 5 to 7-Bus	Clinton Motors Corp.	Reading, Pa.	.....	.....	.....	.....	.....
Clydesdale	1¼, 1½, 2, 2½, 3, 3½, 5	Clydesdale Motor Truck Co.	Clyde, Ohio.	Yes	No	No	Yes	Yes
Columbia	1½, 2½, 3	Columbia Motor Truck Co.	Pontiac, Mich.	.....	.....	.....	.....	.....
Commerce	1, 1½, 2, 2½-Bus	Commerce Motor Truck Co.	Ypsilanti, Mich.	Yes	No	No	Yes	Yes
Concord	1, 1½, 2, 2½, 3	Abbott-Downing Truck & Body Company	Concord, N. H.	.....	.....	.....	.....	.....
Corbitt	1, 1¼, 1½, 2, 2½, 3, 4, 5	Corbitt Motor Truck Co.	Henderson, N. C.	Yes	.....	.....	Yes	Yes
Day-Elder	1½, 2, 2½, 3, 4, 5, Bus.	Day-Elder Motors Corp.	Newark, N. J.	Yes	.....	.....	Yes	Yes
Defiance	1½	Century Motor Truck Co.	Defiance, Ohio	Yes	No	Yes	Yes	Yes
Denby	1½, 2, 2½, 3, 4, 5	Denby Motor Truck Corp.	Detroit, Mich.	.....	No	Yes	.....	.....
Diamond T	1, 1¼, 1½, 2½, 3½, 5	Diamond T Motor Car Co.	Chicago, Ill.	Yes	No	Yes	Yes	Yes
Dixon	1½, 2, 2½, 3½, 5	Dixon Motor Truck Co.	Altoona, Pa.	.....	Yes	.....	.....	.....
Dodge Brothers	¾	Dodge Brothers, Inc.	Detroit, Mich.	.....	.....	.....	.....	.....
Dorris	1, 2½, 3½	Dorris Motor Car Co.	St. Louis, Mo.	.....	.....	.....	.....	.....
Double Drive	3	Double Drive Truck Co.	Benton Harbor, Mich.	.....	.....	.....	.....	.....
Duplex	1, 1½, 2, 3, 3½-Bus	Duplex Truck Co.	Lansing, Mich.	Yes	.....	No	.....	Yes
Eagle	1¼, 2	Eagle Motor Truck Corp.	St. Louis, Mo.	.....	.....	.....	.....	.....
F. W. D.	3	Four-Wheel Drive Auto Co.	Clintonville, Wis.	Yes	.....	Yes	.....	Yes
Fageol	2, 3, 4, 6-Bus	Fageol Motors Co.	Oakland, Cal.	Yes	No	.....	.....	.....
Federal	1, 1¼, 1½, 2, 2½, 4, 5-Bus, T. T.	Federal Motor Truck Co.	Detroit, Mich.	.....	.....	.....	.....	.....
Fifth Avenue	Bus	Fifth Avenue Coach Co.	New York City.	.....	.....	.....	.....	.....
Fisher Fast Freight	1½	Standard Motor Truck Co.	Detroit, Mich.	Yes	No	No	Yes	Yes
Ford	1	Ford Motor Co.	Highland Park, Mich.	Yes	No	Yes	No	Yes
Front Drive	1½	Double Drive Truck Co.	Benton Harbor, Mich.	.....	.....	.....	.....	.....
Fulton	1, 2	Fulton Motors Corp.	Farmingdale, N. Y.	.....	.....	.....	.....	.....
G. M. C	1, 2½, 3½, 5-T. T.	General Motors Truck Co.	Pontiac, Mich.	Yes	No	Yes	Yes	Yes
G. W. W.	1½, 2	Wilson Truck Mfg. Co.	Henderson, Iowa	.....	.....	.....	.....	.....
Garford	1, 1½, 2½, 4, 5, 7½-Bus	Garford Motor Truck Co.	Lima, Ohio	.....	.....	.....	.....	.....
Gary	1, 2, 2½, 3, 3½, 5	Gary Motor Corp.	Gary, Ind.	.....	.....	.....	.....	.....
Gotfredson	1, 1½, 2, 3, 4, 5	Gotfredson Truck Corp.	Detroit, Mich. & Walkerville, Ont.	Yes	.....	Yes	Yes	.....
Graham	1, 1½-Bus	Graham Brothers	Detroit, Mich.	.....	.....	.....	.....	.....
Gramm-Bernstein	1, 1¼, 1½, 2, 2½, 3, 3½, 4, 5, 6	Gramm-Bernstein Motor Truck Co.	Lima, Ohio	.....	.....	.....	.....	.....
Grass Premier	1, 1½, 2, 2½, 3½	Grass Premier Truck Co.	Sauk City, Wis.	No	Yes	No	No	No
Guilder	1¼, 1½, 2, 3, 4, 5, 6-Bus	Guilder Engineering Co.	Poughkeepsie, N. Y.	.....	.....	.....	.....	.....
Hahn	1¼, 1½, 2, 2½, 3, 5	Hahn Motor Truck Co.	Hamburg, Pa.	Yes	Yes	.....	.....	.....
Harvey	2½, 3½, 7, 10-T. T.	Harvey Motor Truck Co.	Harvey, Ill.	No	Yes	Yes	No	No
Hawkeye	1½, 2½, 3½	Hawkeye Truck Co.	Sioux City, Iowa	.....	.....	.....	.....	.....
Hug	1½, 2, 2½	Hug Company	Highland, Ill.	Yes	.....	.....	Yes	.....
Independent	1, 1½, 2½	Independent Motor Truck Co., Inc.	Davenport, Ia.	.....	.....	.....	.....	.....
Indiana	1, 1½, 2, 2½, 3½, 5	Indiana Truck Corp.	Marion, Ind.	Yes	Yes	Yes	Yes	Yes
International	1, 1½, 2, 3, 5-Bus	International Harvester Co. of America	Chicago, Ill.	.....	.....	.....	.....	.....
Kankakee	2½	Kankakee Motor Truck Co.	Kankakee, Ill.	.....	.....	.....	.....	.....
Kelland (Elec.)	½, ¾, 1	Kelland Motor Car Co.	Newark, N. J.	No	Yes	No	No	No
Kelly-Springfield	1½, 2, 2½, 3½-5-7	Kelly-Springfield Motor Truck Co.	Springfield, Ohio	Yes	No	Yes	Yes	Yes

Trade Name	Capacity	Name	Address	How Manufacturer Sells: Nationally	Locally	Branches	Distributors	Dealers
Kenworth	1, 1½, 3, 3½	Kenworth Motor Truck Corp.	Seattle, Wash.	No	Yes	No	.....	Yes
King Zeitler	1, 1½, 2½, 3½, 5	King Zeitler Co.	Chicago, Ill.	.....	.....	.....	.....	.....
Kissel	1, 1½, 3½, 5 Bus	Kissel Motor Car Co.	Hartford, Wis.	Yes	.....	No	Yes	Yes
Kleiber	1½, 2½, 3½, 5	Kleiber Motor Truck Co.	San Francisco, Cal.	.....	.....	.....	.....	.....
Krebs	1½, 2, 2½, 3, 4, 5, 7½	Krebs Motor Truck Co.	Bellevue, Ohio	Yes	No	No	Yes	Yes
Lange	1½, 2½, 3½	Lange Motor Truck Co.	Pittsburgh, Pa.	.....	.....	.....	.....	.....
Lansden (Elec.)	¾, 1, 2, 3½, 5, 6	Lansden Company	Danbury, Conn.	Yes	.....	1-N. Y. State only	Yes	Yes
Larrabee-Deyo	1¼, 1½, 2½, 3½-Bus	Larrabee-Deyo Motor Truck Co., Inc.	Binghamton, N. Y.	.....	.....	.....	.....	.....
Luedinghaus	1, 1½, 2, 3½, 5	Luedinghaus-Espenschied Wagon Co.	St. Louis, Mo.	.....	.....	.....	.....	.....
Maccar	1¼, 2, 3, 4, 5	Maccar Truck Co.	Scranton, Pa.	No	Yes	4	Yes	Yes
Mack	1½, 2, 2½, 3½, 5, 6½, 7½-Bus T. T.	International Motor Co.	New York, N. Y.	Yes	.....	86	.....	Yes
Mason Road King	1½-Bus	Mason Motor Truck Co.	Flint, Mich.	Yes	.....	Yes	Yes	Yes
Master	1¼, 1½, 2½, 3½, 5, 5½-Bus	Master Motor Truck Mfg. Co.	Chicago, Ill.	.....	.....	.....	.....	.....
Menominee	1, 1¼, 1½, 2½, Bus	Menominee Motor Truck Co.	Clintonville, Wis.	.....	.....	.....	.....	.....
Moreland	1, 1½, 2, 3, 5	Moreland Motor Truck Co.	Burbank, Cal.	.....	.....	.....	.....	.....
Nash	1, 2, 2½,	Nash Motors Co.	Kenosha, Wis.	Yes	No	No	Yes	Yes
National	2, 3, 3½, 4	National Steel Car Corp., Ltd.	Hamilton, Ont., Canada	Yes	No	2	No	Yes
Nelson-LeMoon	1, 1½, 2, 2½, 3½, 5	Nelson & Le Moon	Chicago, Ill.	.....	.....	.....	.....	.....
Netco	2½, 3, 4	New England Truck Co.	Fitchburg, Mass.	.....	.....	.....	.....	.....
Noble	1, 1½, 2, 2½, 3, 3½, 4	Noble Motor Truck Co.	Kendallville, Ind.	No	No	No	Yes	Yes
Northway	1¼, 3, 5	Northway Motors Corp.	Natick, Mass.	.....	.....	.....	.....	.....
O. B. (Elec.)	2, 3½, 5	O. B. Electric Vehicles, Inc.	Long Island City N. Y.	.....	.....	.....	.....	.....
O. K.	1, 1½, 2, 2½, 3½	Nolan Truck Co.	Okay, Okla.	.....	.....	.....	.....	.....
Ogden	1, 1½, 2½, 3½, 5	Ogden Truck Co.	Chicago, Ill.	.....	.....	.....	.....	.....
Oneida	2, 2½, 3½, 5	Oneida Manufacturing Co.	Green Bay, Wis.	.....	.....	.....	.....	.....
Oshkosh	2, 2½, 4	Oshkosh Motor Truck Mfg. Co.	Oshkosh, Wis.	.....	Yes	No	.....	Yes
Overland	½	Willys-Overland Co.	Toledo, Ohio.	Yes	Yes	24	Yes	Yes
Patriot	1¼, 2, 3	Patriot Mfg. Co.	Havelock, Neb.	Yes	No	No	Yes	Yes
Penn	1, 2	Penn Motors Corp.	Philadelphia, Pa.	.....	.....	.....	.....	.....
Pierce-Arrow	2, 3, 4, 5, 6, 7½, T. T.	Pierce-Arrow Motor Car Co.	Buffalo, N. Y.	Yes	No	.....	Yes	Yes
Pioneer	1	Pioneer Truck Co.	Chicago, Ill.	.....	.....	.....	.....	.....
Power	1½, 2½, 3½	Power Truck & Tractor Co.	St. Louis, Mo.	.....	.....	.....	.....	.....
Rainier	¾, 1, 1½, 2, 2½, 3½, 5, 6	Rainer Trucks, Inc.	Long Island City, N. Y.	No	Yes	No	Yes	Yes
Rehberger	3, 4, 5	Arthur Rehberger & Son, Inc.	Newark, N. J.	No	Yes	No	.....	.....
Reo	1¼-Bus	Reo Motor Car Co.	Lansing, Mich.	.....	.....	.....	.....	.....
Republic	1¼, 1½, 2, 3, 4½-Bus	Republic Motor Truck Co., Inc.	Alma, Mich.	Yes	No	No	Yes	Yes
Rowe	2½, 3, 4, 5	Rowe Motor Mfg. Co.	Lancaster, Pa.	.....	.....	.....	.....	.....
Ruggles	¾, 1¼, 1½, 2, 2½, 3-Bus	Ruggles Motor Truck Co.	Saginaw, Mich.	.....	.....	.....	.....	.....
Rumely	1½	Advance Rumely Thresher Co.	Laporte, Ind.	Yes	No	30	Yes	Yes
Safeway Six Wheeler	Bus	The Six Wheel Co.	Philadelphia, Pa.	Yes	.....	.....	.....	.....
Sandow	1, 1½, 2, 2½, 3½, 5	Sandow Motor Truck Co.	Chicago Heights, Ill.	Yes	No	.....	.....	.....
Sanford	1, 1½, 2½, 3½, 5	Sanford Motor Co.	Syracuse, N. Y.	Yes	.....	.....	Yes	.....
Saurer	6½, T. T.	Adolph Saurer, Inc.	New York, N. Y.	.....	Yes	Yes	No	Yes
Schacht	1½, 2, 2½, 3, 4, 5-Bus	G. A. Schacht Motor Truck Co.	Cincinnati, Ohio.	Yes	.....	Yes	.....	Yes
Selden	1¼, 1½, 2¼, 2½, 3, 3½, 5-Bus	Selden Truck Corp.	Rochester, N. Y.	Yes	No	Yes	Yes	Yes
Service	1, 1½, 2½, 3½, 5	Service Motors, Inc.	Wabash, Ind.	Yes	.....	Yes	Yes	Yes
Standard	1¼, 1½, 2½, 3½, 5, 6	Standard Motor Truck Co.	Detroit, Mich.	Yes	No	No	Yes	Yes
Steinmetz (Elec.)		Steinmetz Electric Motor Car Corp.	Arlington, Baltimore, Md.	Yes	.....	.....	Yes	Yes
Sterling	1, 1½, 2, 2½, 3, 3½, 5, 6, 10, T.T-Bus	Sterling Motor Truck Co.	Milwaukee, Wis.	Yes	.....	Yes	Yes	Yes
Stewart	1, 1½, 2, 2½,-3, 3½-4	Stewart Motor Corp.	Buffalo, N. Y.	Yes	.....	Yes	Yes	Yes
Stoughton	1¼, 1½, 2, 3,	Stoughton Wagon Co.	Stoughton, Wis.	.....	.....	.....	.....	.....
Super Truck	2½, 3½, 5	O'Connell Motor Truck Co.	Waukegan, Ill.	No	Yes	No	No	No
Traffic	1½, 2, 3	Traffic Motor Truck Corp.	St. Louis, Mo.	.....	.....	.....	.....	.....
Transport	1, 1½, 2, 3½, 5	Transport Truck Co.	Mt. Pleasant, Mich.	.....	.....	.....	.....	.....
Traylor	1½, 2, 3, 5	Traylor Eng. & Mfg. Co.	Allentown, Pa.	.....	.....	.....	.....	.....
Triangle	1, 1½, 2, 2½	Triangle Motor Truck Co.	St. Johns, Mich.	.....	.....	.....	.....	.....
Twin City	2½, 3, 3½	Minneapolis Steel & Machinery Co.	Minneapolis, Minn.	Yes	No	Yes	Yes	Yes
U. S.	1¼, 1½, 2½, 3, 4, 5-7	United States Motor Truck Co.	Cincinnati, Ohio	.....	.....	.....	.....	.....
Union	1½, 2½, 4, 6-Bus	Union Motor Truck Co.	Bay City, Mich.	Yes	Yes	.....	.....	Yes
United	1¼, 1½, 2, 2½, 3 5-Bus	United Motor Products Co.	Grand Rapids, Mich.	Yes	.....	Yes	Yes	Yes
Victor	1¼, 1½, 2, 2½, 3½, 5, 6	Victor Motors, Inc.	St. Louis, Mo.	.....	.....	.....	.....	.....
Wachusett	1, 1½, 2, 2½	Wachusett Motors, Inc.	Fitchburg, Mass.	.....	Yes	.....	.....	.....
Walker (Elec.)	½, ¾, 1, 2, 3½, 5	Walker Vehicle Co.	Chicago, Ill.	.....	.....	.....	.....	.....
Walter (Elec.)	T. T.	Walter Motor Truck Co.	Long Island City, N. Y.	Yes	Yes	.....	Yes	.....
Ward (Elec.)	750 lbs. to 7 ton	Ward Motor Vehicle Co.	Mt. Vernon, N. Y.	Yes	.....	Yes	Yes	Yes
Ward La France	2½, 3½, 5, 7-Bus	Ward La France Truck Corp.	Elmira, N. Y.	Yes	No	Yes	.....	Yes
White	¾, 2, 2½, 3½, 5-Bus	White Co.	Cleveland, Ohio	.....	.....	.....	.....	.....
Wilcox	1, 1½, 2½, 3½, 5	Wilcox Trux, Inc.	Minneapolis, Minn.	.....	.....	.....	.....	.....
Winther	1½, 2½, 3, 3½, 5, 7	Winther Motor Co.	Kenosha, Wis.	.....	.....	.....	.....	.....
Witt Will	1½, 2, 2½, 3, 4, 5	Witt Will Co., Inc.	Washington, D. C.	No	Yes	No	No	No
Yellow Cab	¾, 1-Bus	Yellow Cab Mfg. Co.	Chicago, Ill.	.....	.....	.....	.....	.....

Conducting a Truck Selling Business for Profit

The Opinions of Some Successful Dealers on the Methods That Pay

By H. LIONEL WILLIAMS

(*Continued from February issue*)

IF every truck dealer had the courage of his convictions and knew enough about business principles to conduct his operations for profit only, the trade-in bogey would be non-existent. However, as we have to face facts as they are, it should be both interesting and profitable to learn the views and methods of some of the truck dealers **who are meeting every kind of competition** and yet managing to **show a profit at the end of every twelve months.**

Dealer No. 3 (Illinois). "We sell a well-known light truck together with passenger cars of the same make. Automobiles form about 75 per cent of our business, yet the truck side is also very profitable. Although we believe in having separate salesmen for trucks and cars, unless the firm is of considerable size this means prohibitive overheads. As far as possible, however, we let each salesman concentrate on one class of business, so that they soon become well versed in the needs of their customers in that particular class. As an inducement for our men to sell trucks we offer them an extra one per cent commission. Under this arrangement we find that very often a salesman will take a demonstrator and make a house-to-house call on the tradespeople. Usually they manage to dig up one or two good prospects this way.

"As we have two light vehicles, a 1¼-tonner and a ¾-ton job, we have customers and prospects in every class of retail business from film renters to butchers. Usually we have a commercial car on the floor, but very little truck business comes in the showroom as does the car business. Truck business has to be gone after and **we consider perseverance is a bigger factor in truck marketing** than is technical knowledge. Incidentally, the principals usually close truck sales.

"All our salesmen work on a commission basis, as we have found that salaries do not pay. Inspirational talks are given daily, and we find that constant personal touch between salesmen and principals secures the highest efficiency from the sales force. Much sales data is of course provided by the factory, which also assists in the advertising. Half a page each week in the local newspaper is what we use at present, and once a month this space is devoted to trucks. Altogether we spend about one per cent of our gross turnover in this advertising. Actually we sell about 200 units each year, which is equivalent to about $275,000 value.

"We think that the **price-cutting problem is the biggest evil** with which we have to contend at the present time. The maintenance of a legitimate profit introduces added sales resistance. At least half of the truck sales involve trades, but our automobile side being the main business we always feel that we can afford to pass up the less profitable truck deals, so that we never get landed with an over-valued used truck.

"Usually the trucks are sold on twelve monthly payments, with one-third down, but these terms are flexible within a reasonable degree. Some of the paper we carry and some we discount.

"As in any other large city, spares are readily obtainable, so that we carry only about $2,500 worth of parts.

"A noticeable trend in the light vehicle market is the growing appreciation of buyers of the value of their trucks as advertising mediums. More and more of our prospects are people who have used cheaper grades of vehicles and are now going in for better-looking machines."

Dealer No. 4 (Wisconsin). "So far this year business has been better than it ever was before and we have made an excellent start for the year. We have been in the truck business three years and now we are beginning to feel the benefits of repeat business. In commencing we made every endeavor to keep down expenses, so we had our premises erected in a cheaper section of the town, and we are able to cover overheads by garaging cars and trucks, repairing and supply of spares.

"We trade within an area of 25 miles of this town, and we find there are so many colored buyers and small operators that we always have a demand for used trucks.

"As a result we frequently buy used vehicles for resale, and in every case we are able to get 50 per cent down and a maximum of twelve months for payment. On the first few deals we made we burned our fingers, so to speak, and these terms protect us to a great extent. On all new business the manufacturer carries the paper. Most of our new sales are of chassis, and we have an arrangement with a cab builder to supply us with cabs as required.

"Sales of both heavy and light trucks are about equal. Dump trucks, however, we have very little to do with. The average buyer of a single dump job we consider an impossible risk. Milk dealers and furniture warehousemen are always good because they are usually busines men to begin with, and the vehicle forms a part of their business and is not so much their sole means of livelihood. Milkmen, too, must of necessity work every day if they work at all.

"In our service department we have four mechanics, who are constantly employed in servicing the 100 trucks of 60 of our owners as well as the outside business."

Dealer No. 5 (Illinois) gives his views on the general truck situation: "The trouble with the truck industry is that there are too many dealers and too many manufacturers. Say a district has a capacity of a thousand trucks, and there are 40 makes of trucks represented. Six of these will secure 95 per cent of the business, and the other 34 will be cutting one another's throats to get the remaining six per cent. This naturally results in the introduction of unsound trading practices. The inflated price method of selling is one of them. The trucks are sold on a basis of deception, the buyer thinking he is getting much greater value than he really is. It is nothing more nor less than playing the credulity of the purchaser, which in any case is economically unsound.

"All these things add to the high cost of distribution and marketing, a cost which is eventually borne by the purchaser. The more dealers there are the greater the manufacturing overheads.

"I certainly think it pays to manufacture a range of trucks. My experience has shown that prospects who want vehicles of more than one size or capacity will not buy from the one-model maker. Then, too, if a buyer has one of your products, there will be very little difficulty in selling to him when he wants an additional vehicle of larger capacity, because he already knows your product and your methods."

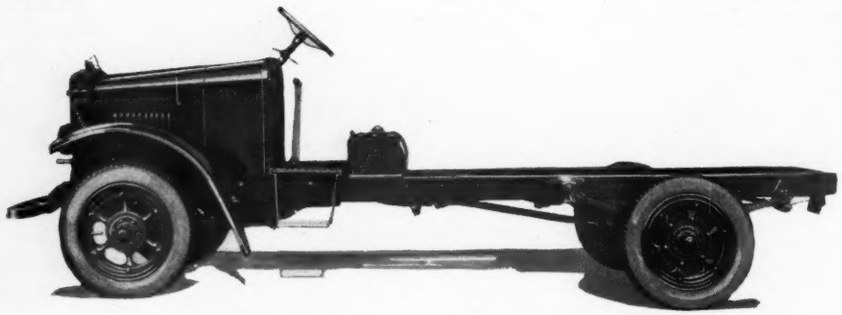
Dealer No. 6 (Ohio) sells trailers after years in the truck dealing business. "Probably one of the sore spots in the industry is that caused by the failure of the manufacturers to discriminate sufficiently when choosing dealers. As a rule they let money govern their decision instead of business ability. If a man has a few thousand dollars to play with they appoint him regardless of whether he knows the business or not. What they should do is pick a good man and stand behind him.

"In trailer sales it is more necessary to survey and analyze the prospect's business than with trucks. Selling is therefore a more lengthy and detailed process, for the trailer proposition must make good when once it is sold. Speaking generally, there is still a pronounced lack of interest by truck operators in trailers. This I think is due to ignorance of trailer possibilities and to the fact that a proper cost system in the truck operator's business is the exception rather than the rule.

"This year we are undoubtedly making progress, and there does not seem to be so many wild-cat operators. Truckmen are slowly but surely becoming educated in business fundamentals. In the meantime the trailer manufacturers and dealers have to go slow by limiting overheads according to the ripeness of the market. It is of no use going out for big output until the market is ready."

Service All-Purpose Truck

DESIGNED and built specifically for all-around, all-purpose, truck purpose, the Service All-Purpose Truck, Model 25-F, just brought out by the Service Motors, Inc., Wabash, Ind., is fully qualified to meet the demand for a delivery unit that combines speed with ample capacity and durability. When equipped with a body adapted for any particular line of business or activity, the All-Purpose model is in readiness to meet every contingency.



Chassis View of the Latest Service Model
It is known as the All-Service Truck, Model 25-F. Combines speed with capacity

The power plant is a 3¾ x 5⅛, 4-cylinder, L-head type, removable head Buda and is cushioned against shock and strain by three-point suspension. Mounted in unit with the engine is a single plate adjustable clutch and a three-speed transmission. The S. A. E. horsepower rating of the engine is 22.5; at 1400 r.p.m., 31.5; at 1600, 33.3; and 1800, 34. Water is circulated by a centrifugal pump of large capacity and which can be readily dismantled as a unit. The radiator is cast tank of the fin and tube type. Air circulation is induced by a 16-in. fan. Lubrication is full force feed by a gear pump to all main and connecting rod bearings. Excess oil flows over the timing gears.

Gasoline is fed to a plain tube type carburetor from a 15-gal. tank by vacuum feed. Ignition is by battery and is manually controlled.

From the transmission power is carried to the rear axle through a two-piece propeller shaft supported in the center by a bracket and bearing for protection against vibration and whipping. Flexible fabric universal joints, front and rear, cushion the engine drive and protect the driving mechanism against shock. The rear propeller shaft is fitted at the front with a metal universal joint with slip-joint, fully enclosed. Final drive is through a heavy-duty, spiral-bevel gear of the fixed hub type. Taper roller bearings are used throughout. The brakes are located inside the drums where they can cause no interference. Both the foot-operated service brake and the hand-operated emergency are of the internal expanding type. They are cam-actuated and the shoes contact against an 18-in. drum. The front axle is of the conventional drop-forged I-beam section type.

Four semi-elliptic springs support the frame, which is hydraulic pressed steel channel strongly reinforced with gusset plates and cross members. All holes are drilled and hot riveted. Steering is provided by a gear of the irreversible truck type. Double ball thrust bearings are used in the assembly. The steering wheel is 18-in. diam.

The wheels are cast metal equipped with pneumatic cords, 30 x 5, front and rear.

Drive is left-hand with center control. Brake and gear shifting levers are mounted on the transmission to the right of the driver. Spark control is on the steering wheel and the throttle operated by lever and is also mounted on the steering gear with foot accelerator on the toe-board.

The body load and equipment capacity is 4500 lb.; the chassis weight, 3675 lb., and the total loaded weight, 8175 lb. The standard wheelbase is 132 in., the long wheelbase is 150 in. Road clearance at the front axle is 8½ in., at the rear axle it is 8¼ in. The tread is 56⅝ in. front and 58½ in. rear. Turning radius, 18 ft.

Chassis lubrication is provided by pressure oil cups on all shackle bolts and shackles.

Electric equipment includes distributor, generator and starter, battery, head, cowl and tail lights, ammeter, switch, fuse and junction block, horn and all necessary wiring.

Standard equipment includes tools, battery box, jack, oil gun and bracket, speedometer and bumper.

Service Model 25-F With Tank Body

Below: Equipped With Special Platform Body.

Pierce-Arrow Short Wheelbase Dump Chassis

That motor truck manufacturers are adapting their products to overcome traffic congestion is demonstrated by the new three ton tractor type dump truck which is the most recent addition to the Pierce-Arrow line of dual-valve trucks. Because of its short wheel base, which is nearly three feet shorter than the standard truck, this new tractor type truck can maneuver with ease in narrow city streets and alleys and go into places where the long wheel base truck can not turn. This ability to turn in a short radius will save many minutes of the driver's time besides making for more all around efficiency.

This new truck, known as tractor type dump truck, has been found useful for the delivery of coal in places where trucks with a longer wheel base find it very difficult to turn.

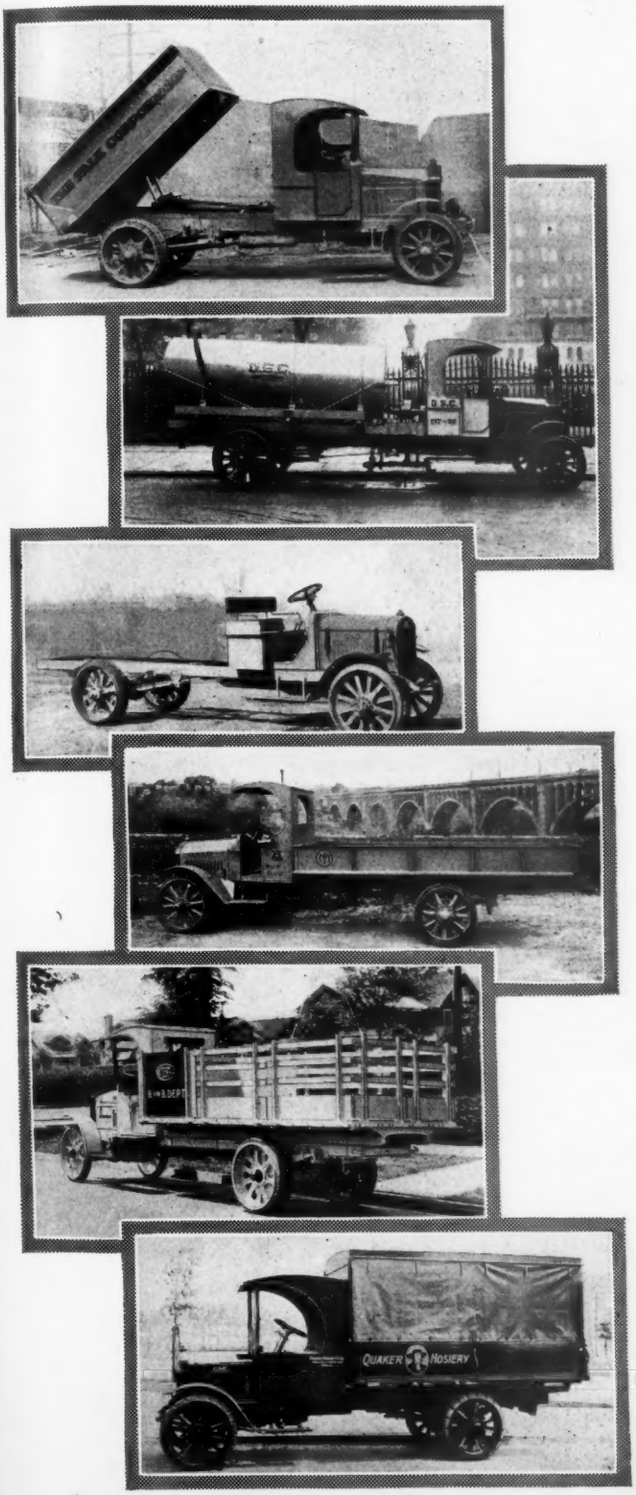
Another use of the truck is for road building. Equipped with batch boards, the load can be divided into sections and the aggregates delivered directly to the concrete mixer without rehandling and in proportion to the capacity of the mixer.

The truck is equipped with a hydraulic hoist.

The engine is the standard Pierce-Arrow engine for trucks with dual valve and dual ignition. The worm drive which Pierce-Arrow has been using since 1911 is used in this truck.

This truck has a turning radius of 17 ft. which enables it to turn in a circle of 34 ft. This short turning radius enables this truck to be used where trucks of ordinary three ton size can not navigate easily on account of their length.

Typical Motor Trucks Fitted With Bethlehem Rolled Steel Truck Wheels



BETHLEHEM Rolled Steel Truck Wheels are designed and manufactured with a keen appreciation of the practical requirements of the individual or fleet operator. They are built to withstand any sidethrust which they are likely to meet with in everyday use.

From a series of Laboratory Strength-Tests, recently conducted by the U. S. Bureau of Standards on six different types of truck wheels, the conclusion arrived at was:

> "The I-beam type of wheel was the strongest and most resilient metal wheel tested."

Actual service under all kinds of conditions has proved that every claim made for these wheels is fully substantiated.

To insure satisfactory performance specify Bethlehem Rolled Steel Wheels on your next truck order.

BETHLEHEM STEEL COMPANY

General Offices: **BETHLEHEM, PA.**

Sales Offices:

New York	Baltimore		Pittsburgh	Chicago
Boston	Washington	Cincinnati	Cleveland	St. Louis
Philadelphia	Atlanta	Buffalo	Detroit	San Francisco

BETHLEHEM

Auto-San Liquid Soap

Those concerned in the clean appearance of a fleet of delivery trucks, taxicabs or buses know what a problem it is to keep their units spic and span. They also realize the importance of cleanliness from a psychological standpoint. Quality of service is frequently gaged by patrons by the manner in which the smaller elements are handled. Cleanliness reflects system, order and efficiency. Hence this factor is deserving of the serious attention of wide-awake operators.

Although the operator wants a cleaning substance that will clean his units effectively, and with the greatest dispatch, he is particularly anxious of securing a cleaning agent that will not destroy the finish. It is not so much the cost of the soap that counts but the cost of repainting, especially if it becomes necessary to repaint before the regular period. Real economy, therefore, does not enter unless a cleaning substance is used that preserves the finish, or does not destroy or break it down.

The Huntington Laboratories, Inc., Huntington, Ind., claims that in its new product, Auto-San Liquid Soap, a cleaning agent is offered that embodies all the characteristics demanded by the operator. It is stated to dissolve instantly in cold or hot water, to be simple of application, and effectively clean without injuring finish.

Before developing Auto-San extensive research was carried on in an effort to determine definitely all the undesirable elements. An analysis of various soaps disclosed a low soap content; that caustic soda and cheaper grades of potash and oils were used and that these ingredients were not properly united with the neutral soap; that raw alkali was frequently liberated, thereby saponizing the paint, making it hard and brittle; and that some soaps did not dissolve thoroughly, permitting harmful chunks of undissolved soap to float in the solution. All these essential faults were considered in the development of the new product. The company discovered that a soap made from pure potash and linseed oil contained the best preserving qualities. By actual test and guarantee Auto-San is stated to possess 30 per cent more of anhydrous soap and that it is entirely neutral and non-alkaline.

But one part of Auto-San is required to fifty parts of water. Before using the solution a hose should first be used to remove all loose dirt and dust. Then apply solution to all parts with a clean sponge. Finally rinse off with another clean sponge and cold water and wipe clean with a chamois.

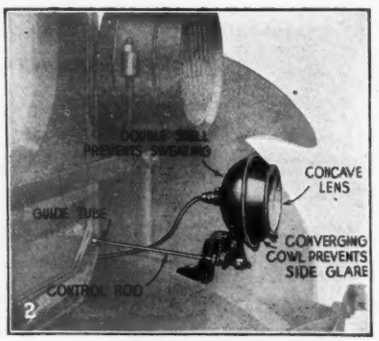
Wants Stronger Legislation Against the Bus

The Iowa State Board of Railroad Commissioners appeared before the legislature of Iowa in session now to ask that a revision be made of the state motor bus law, passed by the fortieth general assembly. The railroad commissioners want a law that has more "teeth" in it.

Farwell Spot Light

Designed particularly for added protection and convenience while driving at night the Farwell Spot Light, manufactured by the Farwell-Toledo Gear Co., 1702 Summit St., Toledo, O., is especially adaptable as an auxiliary light for trucks, buses and taxi-cabs. The slogan, "It puts a bright spot in the right spot," used by the company describes the utility of the light very aptly.

By reason of construction, control and concentrated brightness, a beam of light

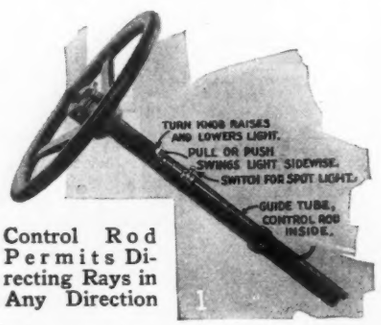


Details on Mounting

can be projected in any direction without causing the driver to strain or change his position in the seat. Since the position of the light is below the left head light, the beam when employed for path-finding is directed downward and to the right illuminating a long narrow strip of roadway, drivers in approaching vehicles are not troubled with glaring or dazzling lights such as is experienced with some headlights. It is explained that no one approaching the vehicle equipped with a Farwell spot light can get within its range of illumination, as no part of the beam is more than 30 inches above the road level when used for road purpose.

Aside from its road finding feature the light is very flexible, its beam, which operates through a wide angle, can be directed against house numbers or street signs with ease.

The Farwell spot light may be mounted on the support of the left head light or


TURN KNOB RAISES AND LOWERS LIGHT.
PULL OR PUSH SWINGS LIGHT SIDEWISE.
SWITCH FOR SPOT LIGHT.
GUIDE TUBE, CONTROL ROD INSIDE.
1

Control Rod Permits Directing Rays in Any Direction

on the cross bar between the head lights and is easily attached. The switch and control are on the steering column just below the wheel. A turn of the knob raises or lowers the light. A push or pull swings the light right or left.

Structurally the light is well made. It is moisture and dust-proof and is stated not to rust, rattle or freeze. Its double shell construction with air space between prevents sweating. The price is $12.50

Petry Bus Heating System

By employing seamless drawn tubing shaped in easy flowing contours in the heat radiating system of the Petry Bus Heater, manufactured by the N. A. Petry Co., Inc., Philadelphia, Pa., increased heating efficiency is obtained. No opposition is offered the free passage of hot gases from the engine as sharp angles or elbows tending to retard same have been eliminated wherever possible. Easy flow of the gases is afforded preventing back pressure and permitting the utilization of a greater percentage of heat units.

In a description of the Petry system which appeared in the February issue page 53, of the Commercial Car Journal, the word "Flexible" was used giving a misleading conception of the construction of the tubing used in the system. The tubing is not flexible, it is seamless drawn, accurate as to diameter and drawn specially for bus heating requirements. Mention was also made to the control unit, which was named the Tuning-Up Valve. This is incorrect. Heat is regulated by a Heater valve. This valve, which is operated by a lever located at a point convenient to the driver, is designed so that the gases from the engine are diverted at an easy angle into the heating system.

Weatherproof Offers Knock-Down Cab

A new type of knock-down truck cab of great interest to both foreign and domestic users of such equipment has recently been introduced in two sizes by the Weatherproof Body Corp., Corunna, Mich. According to specifications, this new type of cab knocks down into six sections and is so compact that it can be shipped at first-class rates, instead of the customary charge for assembled cabs of four times first class.

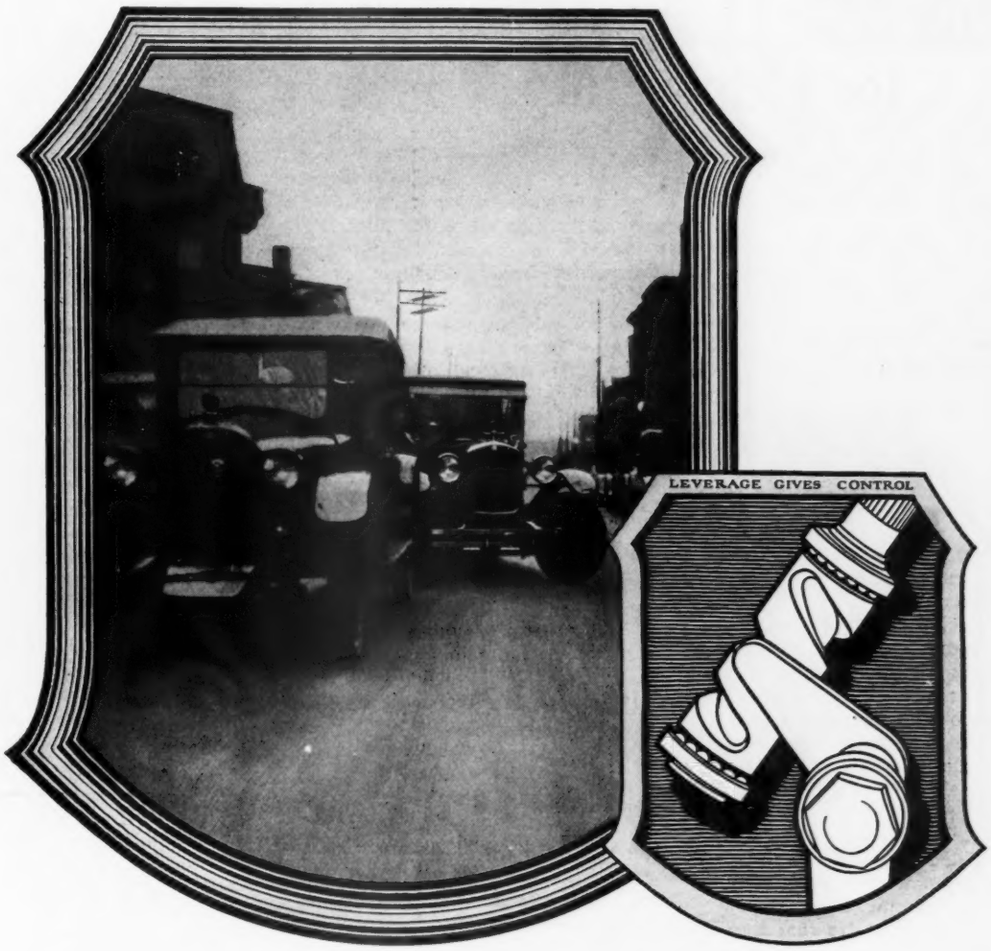
Construction of the sections is such that two men can assemble the cab in less than one hour. Only twenty bolts are required in the assembly. A new arrangement of steel braces is employed whereby the cab, when assembled, is claimed to be as rigid and rattle-proof as any standard type.

The general design duplicates the standard new model recently introduced by the weatherproof people.

Officials of the Weatherproof Company expect this new cab to greatly increase its domestic volume, as freight rates will cease to be a serious price factor. And the advantages in export trade are obvious.

Ventilator Tests

"Ventilator Tests" is a 28 page pocket size booklet which has been issued by the Nichols-Lintern Co., 7960 Lorain Ave., Cleveland, O. This booklet fully describes N-L Bus and Railway Ventilators by illustrations and dimensional drawings together with actual service tests of the exhaust capacity of each type ventilator at various speeds. By referring to this booklet the body or car engineer can very easily determine the type and number of ventilators needed for proper vehicle ventilation.



When Action Counts!

YOU'RE bowling along in a line of traffic . . . . suddenly and without warning, the car just ahead of you *stops*. A quick swerve is imperative to avoid collision. With the Ross Cam and Lever Steering Gear you have the prompt response, ease, assurance and control to meet this and all emergencies. On any road—under all conditions—Ross supplies new and imperative steering advantages.

Ross Gear and Tool Company, *760 Heath Street,* Lafayette, Indiana

ROSS

CAM *and* LEVER STEERING GEARS

EASIER STEERING LESS ROAD SHOCK

Flint Bus Axle Designed Especially for Heavy Duty

MANUFACTURERS of motor buses experimenting with practically all kinds of rear axles have as yet failed to find any type other than the bevel gear type suitable for their purposes. And it has only been recently since this type has been available in all sizes.

The Flint Motor Axle Co., Flint, Mich., in view of the demand which it saw sometime ago, has developed an axle suitable for heavier bus work.

Development work included the construction of sample axles that were put through elaborate laboratory tests and then installed in buses and placed in actual operating condition. The drivers were not informed of the experimental axles on their buses and were therefore not inclined to favor the axle. One of the series of laboratory tests was to mount the axle upon a special machine, operated by a 50 h.p. electric motor driving through a gear reduction box having a total reduction of 42 to 1. This machine was equipped with two sets of contracting brakes and provision was made to vary the load imposed upon the axle. Twelve indicators were mounted at various parts in order to obtain the deflections at these points under the different loads. As a result of these tests it was decided to redesign the original axle and the mounting and design of the differential was changed in order to minimize the deflections that are set up under heavy torque loads.

The gear ratio finally adopted was 5.3:1 and also 6.3:1 by means of coarse pitch, nickel steel hardened spiral bevel gears having a face width of 1¾ in. The drive pinion was made integral with the shaft and is mounted between two extra large ball bearings with provision for accurate adjustment. Sixteen rivets are used to secure the ring gear to the differential which has nickel steel gears and pinions, and which is mounted upon extra large taper roller bearings. Adjustment of differential gear is obtained through an opening in the center housing.

The axle shafts are of heat treated chrome nickel steel. Ten splines were adopted in view of the heavy torque loads that would be imposed on the shafts. The shafts are 1¾ in. dia. and the outer ends are mounted in large size single row ball bearings.

The wheel hubs are secured to the axle shafts by a large diameter taper and a nickel steel hardened key of a length that will insure low unit pressures so as to avoid shearing the key, a big castellated nut and washer.

In order to minimize the deflection under load, large diameter truss rods have been used and their attachment to the outer ends of the main tubes is such as to permit the use of springs mounted either above or below the axle center, thus making it possible to secure a low center of gravity of the vehicle, if desired. The main tubes are of high carbon steel and are 4¾ in. dia. at the inner end and are swaged down to 3 15/16 in. dia. at the spring seats. These tubes are inserted in the center housing under several tons pressure and are then riveted in place.

The regular brake equipment supplied consists of high carbon heat treated steel drums of 17½ in. inside dia., having internal expanded cam operated shoes of 4 in. face. When desired, external and internal brakes may be furnished in which case the drums are of 16 in. dia. because of the limitations imposed by the use of balloon type tires. Lockheed type hydraulic operated brakes may also be obtained as special equipment and where necessary provision for the use of air operated brakes is obtainable.

For bus service balloon tires are rapidly coming to the front and these are usually of the dual type, mounted on disk wheels. The hub equipment necessary for this construction is shown on the left hand side of the drawing. Careful attention has been given to the complete enclosure of all working parts so as to prevent the loss of lubricant and the admission of dirt and other foreign matter.

While the tread shown is 56 in. for single tires and 55⅛ in. for dual tires, this axle is obtainable with either 68 in. or 70 in. tread.

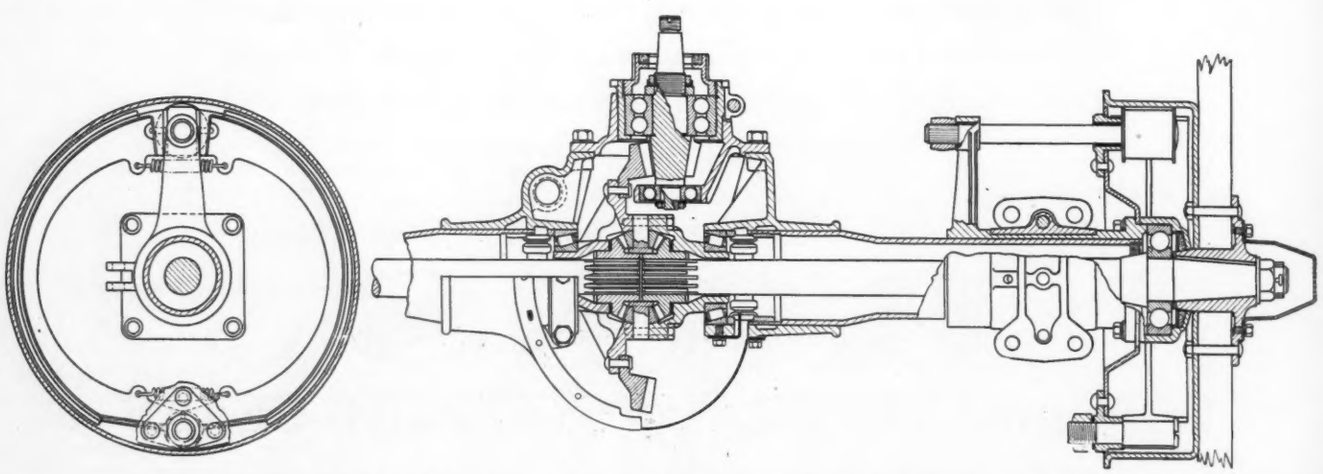
Mead-Morrison Catalog, No. 25

The new catalog of Mead-Morrison Mfg. Co., East Boston, Mass., contains everything of interest, of educational value and of a specification nature that would appeal to progressive public utilities, riggers, truckman and transportation companies.

The booklet is attractively made-up with a number of timely pictures showing just what a truck properly equipped with winch, crane or derrick can do in any emergency and in usual practice. Many of the new uses illustrated therein also may suggest still other profitable adaptations to those engaged in this work. All the necessary details of a descriptive and specification nature together with exceptionally well prepared illustrations of the entire line is also given for the convenience of those desiring further information. The Mead-Morrison line now includes seven types of winches, a Single Line Truck Crane, and a Pole Setting Derrick.

Two New Heil Bulletins

In its Bulletin No. 145 the Heil Co., Milwaukee, Wis., illustrates a number of trucks equipped with Hydro Dumping Equipment. This bulletin will be of particular interest to state and county officials who have trucks to equip. also those city officials who have had a number of surplus trucks allotted them from the Bureau of Surplus War Material. The performance details contained therein together with the illustrations makes the bulletin a valuable source of information. Bulletin No. 146, also well illustrated, shows the various types of Heil equipment that can be furnished for municipal use. It contains data on sprinkler tanks, garbage bodies, ash and rubbish bodies, all of which are of especial interest to small cities.



Mechanical Sketches, Showing Construction and Assembly of the Flint Bevel Gear-Driven Bus Axle

The Garford Parlor Car

"Pullman of the Highways"

Opportunity Knocks at Your Door

IMMEDIATELY motor coach patrons learn of a coach that affords them a vibrationless ride behind a powerful 6-cylinder engine, they patronize this coach and want no other. They know that when vibration is absent, riding comfort is enhanced. Then, they learn such coaches maintain regular schedules. They know they can depend on reaching their journey's end without delays occasioned by the need for roadside repairs. Patrons like to ride in clean, well-kept and well-painted motor coaches that not only are attractive to the eye, but rich and harmonious in color combination, fittings and upholstery.

The men who design and build Garford Motor Coaches are coach specialists who think and operate along coach lines with the advanced idea of building for coach requirements. The Garford Motor Coach is just as distinctive in the passenger transportation field as is the Garford Truck in freight transportation. Our vast production facilities are an assurance that additional motor coach units can be added to any fleet and keep those fleets uniform.

A broadened opportunity is knocking at the door of motor vehicle merchandisers. Write for the booklet described below. It contains valuable information about advanced engineering to be found in motor coaches of today.

A Postal Card Will Bring You This Book

Interesting Information in It for Dealers and Operators

The Garford Motor Truck Company
LIMA, OHIO

TRUCKS—1 to 7½ TONS COACHES—15 to 30 PASSENGERS

Air Cleaner Descriptions

(*Continued from page 21*)

toward the center and passes on into the carburetor.

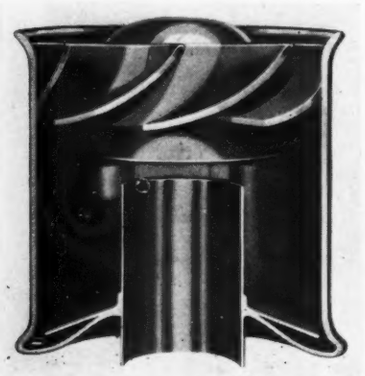
Dirt particles which have been carried to the outside continue to swirl in a helical path around the inner surface of the housing. As the capacity of the opening at the vane assembly is greater than that of the standpipe orifice and the incoming stream is put into rotation a volume of compression and rotation is built up in the lower portion of the cleaner. The baffle plate allows a narrow opening all around the inner surface of the housing and in conjunction with the enlarged diameter at the bottom of the outer member forms a trap at the bottom from which no dirt can get back to the standpipe orifice. The accumulated dust and dirt is ejected at the small opening which is shown at the lower left hand corner of the illustration. This opening is provided with a lip which extends inward and picks up the heavy particles as they are carried around by the swirling action.

The Pomona Air Cleaner

This air cleaner removes the dust from air passing through it by means of centrifugal action combined with an oil spray and an oily filter.

The cyclonic action of the air in the space between the oil and the filter is caused by the fact that the inlet nozzle is directed tangentially against one side of the cylinder. The air follows the wall around in a circle producing a small cyclone. This little cyclone draws up a column of oil just as a water-spout is drawn up by a cyclone from a body of water in nature. The oil is scattered in drops against the inside walls and on the filter, washing the dust down into the cup. All the drops which are thrown upward are stopped by the wires and drain back into the cup.

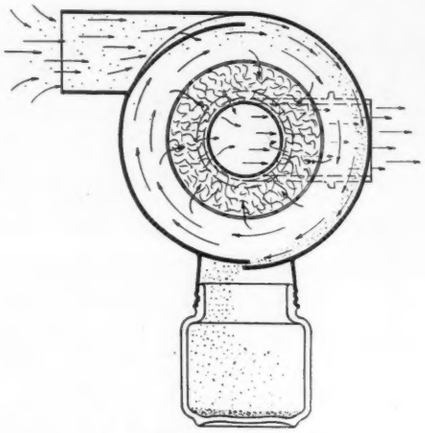
Dust particles being slightly heavier than air, are thrown outward by centrifugal force, together with drops of oil, against the walls of the cleaner. Thus nearly all of the dust carried by the air is caught immediately by the oil. The small percentage which escapes this first centrifugal action is caught on the oily wires as the air passes through the filter. These wires in turn are kept washed off by the drops of oil thrown up from below, so that in the end all of the dust finds its way to the bottom of the cup:



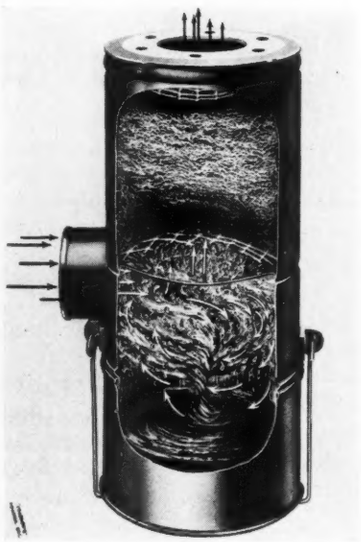
The Handy

The United Air Cleaner

This self-ejecting centrifugal type of cleaner contains but one moving part made from aluminum stampings mounted to rotate upon a single steel ball-bearing. This bearing is cushioned against mechanical shock by adequate felt pads that act as oil reservoirs, with a retaining capacity of 65 drops of oil, which is ample for 2 years of continuous service. To assure alignment, two oilless wood bushings guide the rotor on the lower part of the vertical steel shaft.



The Bennett



The Vortex

Almost no power at all is required to centrifuge all of the dust particles into the outer zone which comprises one-quarter of the air volume entering the cleaner. The dust-laden air in this outer-quarter volume is allowed to escape through a proper-sized opening at the lower outer circumference, taking all of the dust particles with it. The remaining or inner-three-quarters volume is perfectly clean and causes the air motor-fan to rotate while passing through it to the carburetor.

The upper rotating member performs two distinct functions. It imparts sufficient centrifugal force to all dust particles to carry them into the outer one-quarter-volume zone. It also acts as a centrifugal air-blower to suck into the top of the cleaner slightly more air than that required to fill the dust-laden one-quarter-volume. This extra volume is compressed along with the rest of the air at a point just under the edge of the rotor, this action being sufficient to supply all of the carburetor air and at the same time forcibly eject the surplus one-quarter-volume with its burden of dust.

The United

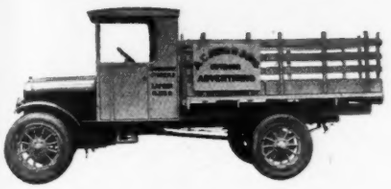
The Bennett Air Cleaner

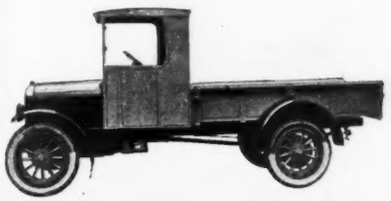
In the Bennett air cleaner air is drawn by the engine suction in through the tangential opening at the top of the air cleaner. This opening is so arranged that the dust-laden air is given a whirl so that centrifugal action throws the dust to the outer wall of the air cleaner where it gravitates to the bottom of the glass jar after passing under the ledge. The air is then drawn inwardly through the cage (which is moss filled) and outward to the carburetor.

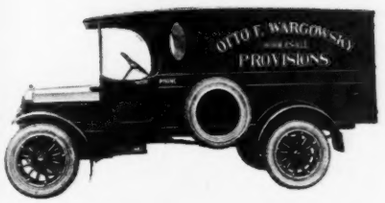
There are two distinct processes of air cleaning. The first cleaning of the air takes place through centrifugal action when the greatest percentage of the dust is caught in the glass jar. The cage constitutes the second process of air cleaning and such fine dust particles as might escape the first cleaning are caught here, thus insuring the highest possible cleaning efficiency. The cage is also an insurance against loss should the air cleaner be heavily overloaded.

Relief of traffic congestion on the West Side of Manhattan is promised in a plan calling for the construction of an elevated vehicular highway along the Hudson River water front and for the removal of all surface tracks of the New York Central Railroad south of Sixtieth street. The tracks, under the plan, would be erected on an elevation beneath the vehicular highway. It is estimated that the vehicular highway would cost about $11,000,000.

A Business Opportunity That Assures Success!







RUGGLES

A complete line of trucks from light, fast delivery to big heavy-duty models, including special models for fire trucks, police patrols, ambulances and other special equipment needs.

A complete line of de luxe motor coaches and city type buses in both "six" and "four" cylinder models covering a range of 16 to 30 passenger capacities.

—and an organization that helps dealers make money

No Ruggles dealer ever has cause for complaint as to Ruggles Factory Co-operation.

We believe that the job of selling automotive transportation is not alone up to the dealer, but a mutual responsibility for both dealer and factory.

The policy, spirit and purpose of the Ruggles organization is to get together with each dealer, study the problems in that particular territory and then adopt a plan of co-operation which will assist the dealer in every practical way to make as many profitable sales as possible.

RUGGLES TRUCKS, BUSES and MOTOR COACHES enable every dealer to meet all transportation needs that arise in his territory.

There is a size and model for every class and character of commercial or passenger transportation—a price for every purse—values that give dealers a tremendous advantage over competition—a complete line that will make dealers a good profit every month in the year.

Let us send you complete information about the Ruggles line and the Ruggles dealer plan.

RUGGLES MOTOR TRUCK COMPANY
SAGINAW, MICHIGAN
U. S. A.

RUGGLES

Make Today's Sales Effort Count for the Future

A 3½-Ton Model

The QUALITY of Luedinghaus Trucks and the INTEGRITY of the 82 year old firm that makes them are a foundation on which you can build a permanently profitable business—

for Luedinghaus Trucks have built into them reserve power and overstrength that will satisfy the most exacting truck operator. They have ability to earn you the enthusiastic support and lasting patronage of the best firms in your community. They will help you *capitalize* your sales effort, and make it count for the future.

Only nationally known and nationally serviced units are built into Luedinghaus Models (1-5 Tons).

Behind these quality-built models stands a firm that has been making heavy hauling vehicles for 82 years. In dealing with them you can be certain of a permanent connection and fair dealing.

We want to get in touch with dealers and distributors who can use such an opportunity

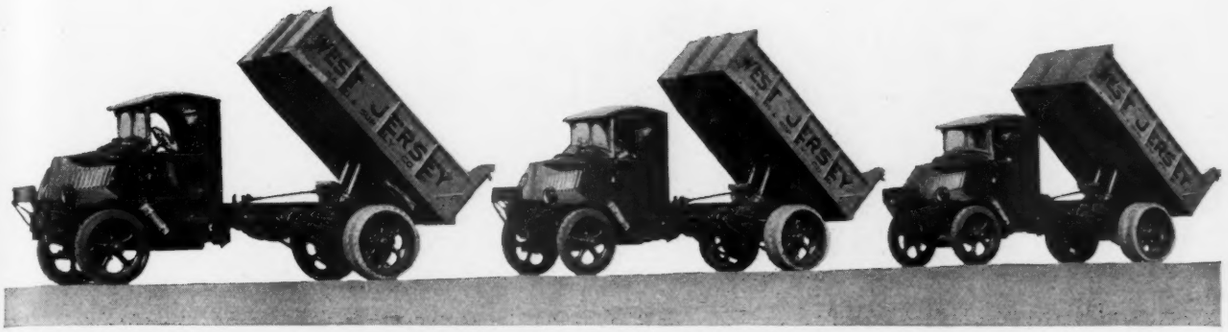
LUEDINGHAUS MOTOR L TRUCKS QUALITY

BUILT BY

Luedinghaus-Espenschied Wagon Co.

N. Broadway, Howard to Mound Sts., St. Louis, Mo.

Established 1843



Heil Model 11 Steel Dump Bodies Mounted With the No. 6 Heil Hydro Hoists on 6½ Ton AC Macks. Bodies Are 11′ 0″ Long, 6′ 0″ Tapered in Width With a Capacity of 162 cu. ft.

Bodies and Hoists Made by HEIL

WEST Jersey Sand and Gravel Co. of Philadelphia have Heil Steel Dump Bodies as well as Heil Hoists on their own trucks. They needed dumps which had been proven dependable. Time was worth money and they looked for equipment which needed the least service attention. So when the time came for buying new trucks, *they specified* HEIL.

When the user specifies Heil Steel Dump Bodies, he makes his selection from a complete quality line including more than fifteen standard models. Examine the construction of the bodies shown above. Note the gusset plate reinforcement; the tail gate corner posts which keeps the rear end from spreading; the full length mudguards, and the sturdy side braces which give absolute rigidity to the entire body.

To get the best possible service, mount bodies with Heil Hydro Hoists. The Hoist of unlimited power, speedy in action, simple in construction and design giving the highest dump angles.

TRUCK DEALERS: If you haven't received your copy of the new Heil Catalog 140, send in the coupon for one today. It contains twenty-eight pages of detailed information and tabulated data about Heil Bodies and Hoists. Price List BH-125 will be included. Just tear off the coupon, fill it out and put it in the mail some time today.

THE HEIL CO.

1143 Montana Avenue **Milwaukee, Wisconsin**

Here Are Two New Heil Distributors at Your Service:

Gustav Schaefer Wagon Co.
4166 Lorain Ave.
Cleveland, Ohio

Sid Schultze
128 E. Main St.
Louisville, Ky.

Please Send in This Coupon Today

The Heil Co.
1143 Montana Ave.
Milwaukee, Wis.

Please send me a copy of your new Catalog 140.

Name .....

Address .....

City .....

We are dealers in ..... trucks.

The photograph reproduced here shows one of the many jobs which the Buoniel Contracting Company's Stag equipped trucks constantly perform.

Pulling Out— with Stag Traction

When a truck of the Buoniel Contracting Company of Brooklyn, New York, goes into a deep sand pit, there's no question about how it will come out. This company equips its trucks with Republic Stag truck tires, knowing that only Stags can pull through anything and stand up under the hard hauling conditions typical of the general contracting business.

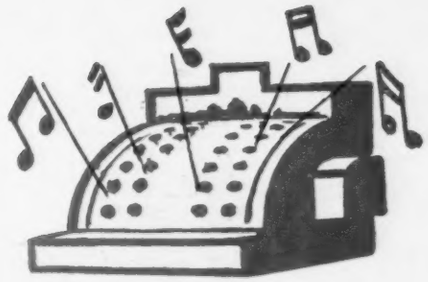
The eighty-four husky Staggard Studs on the Republic Stag grip and pull on any surface. It is the best traction obtainable in a truck tire; traction that pulls over the smoothest road and out of the most treacherous hole.

Your trucks need the safety and efficiency of Stag traction. Visit the nearest Republic distributor. He will gladly give prices and further information.

REPUBLIC STAG TRUCK TIRES

THE REPUBLIC RUBBER COMPANY
Executive Office: 33 West 60th Street, New York
Factories: Youngstown, Ohio

Double your Brake Lining Business



How to become a brake specialist

A BRAKE SPECIALIST is a garageman who has motorists *and dollars* coming to him regularly because he is properly equipped for inspecting, testing and re-lining brakes. It is easy to become one.

* * *

First, you should have complete, up-to-date machine equipment for re-lining brakes the modern way. There are good machines* on the market at right prices and reasonable terms.

Your representative — the mailman. Have him deliver your brake lining story to prospects.

Then you must let motorists know that you are prepared to re-line their brakes—in a short time—at a fair price—with a good lining. You should have signs, counter displays and booklets around your shop carrying this information.

Send brake re-lining circulars to your prospects and enclose leaflets with your bills.

The police force can help you run a "Safe Brakes" Campaign in your town. It pays. Write us.

Advertise in your local newspapers.

Johns-Manville will supply you with all these printed helps, ready to use—including newspaper cuts. These are business-getters—every one.

Most important, re-line with Johns-Manville Asbestos Brake Lining. Motorists know its reputation for durability and safety. Become a brake specialist! Write us about it.

Note:—Johns-Manville has made an extensive investigation of all re-lining machinery. We will tell you the results if you write us.

Through **Asbestos** and its allied products

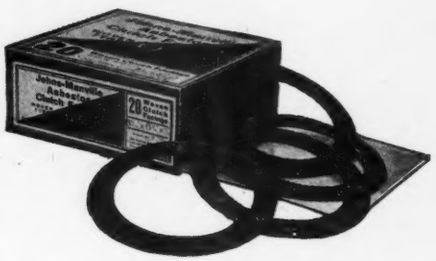
INSULATION
BRAKE LININGS
ROOFINGS
PACKINGS
CEMENTS
FIRE PREVENTION PRODUCTS

Johns-Manville
Asbestos Brake Lining

Every inch has all the braking power and wear resistance that the finest grade of asbestos fibre can give.

Johns-Manville Automobile Tape

This tape is sticky—and more important, it stays sticky! It is strong and will not fray. We guarantee it.



Johns-Manville Woven Asbestos Clutch Facings

For all standard cars requiring disc facings. Our distributors carry a complete stock for your convenience.

Johns-Manville Automotive Service Sheet Packing

Dependable wherever high temperatures are encountered—especially recommended for use on intake and exhaust manifolds, cylinder heads, etc.

Johns-Manville Seigelite Sheet Packing

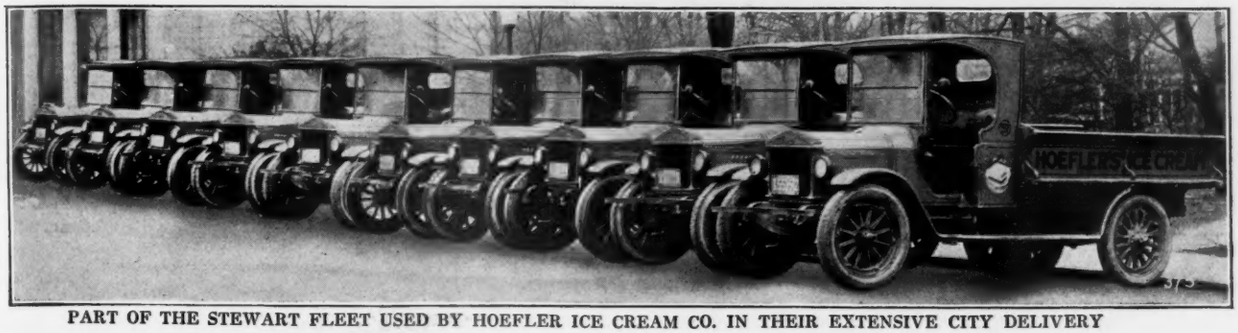
—of high tensile strength especially recommended for use against water or oil, for gasketing water manifolds, differential housings, carburetors, etc.

JOHNS-MANVILLE INC., 292 MADISON AVENUE AT 41st STREET, NEW YORK CITY
Branches in 62 Large Cities For Canada: CANADIAN JOHNS-MANVILLE CO., Ltd., Toronto

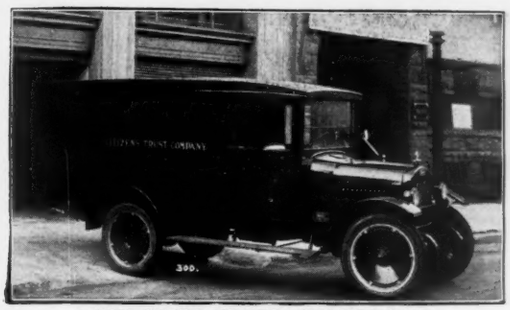
Printed in U. S. A.

Through
Asbestos
and its allied products
INSULATION
BRAKE LININGS
ROOFINGS
PACKINGS
CEMENTS
FIRE PREVENTION PRODUCTS

Stewarts are Quality Trucks Moderately Priced Money Makers for Live Dealers



PART OF THE STEWART FLEET USED BY HOEFLER ICE CREAM CO. IN THEIR EXTENSIVE CITY DELIVERY



1 TON SPEED TRUCK—CHASSIS $1195

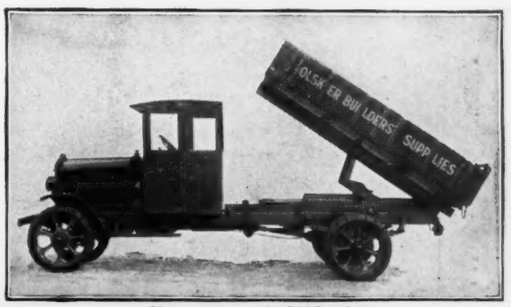
Stewart MOTOR TRUCKS

Capacity One to Four Ton

F. O. B. Buffalo plus tax

1½ TON SPEED TRUCK—CHASSIS $1595

2 TON—CHASSIS $1970



3½-4 TON—CHASSIS $3540

FLEET OF 19 STEWARTS—BUFFALO EVENING NEWS

Many 4, 6, 8, 10 and even 12 year old Stewarts are still running throughout the United States and in 43 foreign countries.

Many large Stewart fleets have grown from a single Stewart truck!

A Stewart dealer is able to meet practically every transportation demand.

STEWART MOTOR CORPORATION

Incorporated 1912

BUFFALO, N. Y.

Export Department, 90 West Street, New York City
Cable Address, Stewartruk, New York

Write for interesting information on the new Stewart Buses.

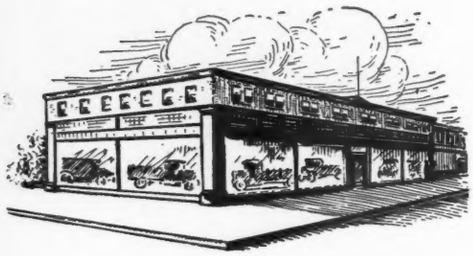
ZENITH

ZENITH Fixed Adjustment Appeals to 3 Classes of Men

The Truck Maker

receives his Zenith carburetors "adjusted once for all by the maker," which saves valuable time in the tuning department.

The manufacturer knows that the adjustment will "stay put" after the truck leaves his factory.

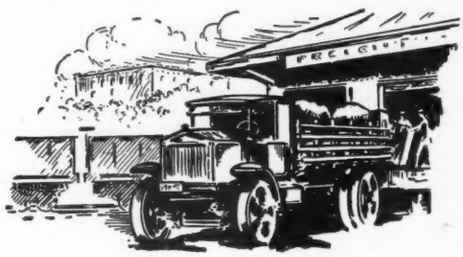


The Truck Dealer

knows that he will have fewer service calls and less work per sale. The Zenith fixed adjustment has sold—and kept sold—many motor trucks.

The Truck Owner

knows that he is protected from tinkering mechanics, and that no conditions of weather, speed, or load can alter the perfect performance of his truck.



ZENITH CARBURETOR

There is a Zenith, tested and proven, for every internal combustion engine.

Our engineers are at the service of manufacturers to determine exactly the right Zenith for each motor; and our organization of over 900 stations covering the entire country co-operates with dealer and owner.

ZENITH-DETROIT CORPORATION

Manufacturer of

ZENITH CARBURETORS

DETROIT MICHIGAN

Branches:

NEW YORK • CLEVELAND • CHICAGO

Over 1000 Service Stations

A HE-TRUCK RECORD

61,206.5 *Miles in 272 Days*

Repairs only $40.25

DOUGLAS MOTOR EXPRESS
Syracuse-Watertown
The 7 Days a Week Line
Carriers of "The Post Standard"

SYRACUSE
214 Walton Street
2-2412

WATERTOWN
844 Cooper Street
W-16-5M

The Sanford Motor Truck Company
107 St. Marks Avenue
Syracuse, New York

Gentlemen:

It might be of interest to you to learn of my appreciation of the services rendered me by my Sanford Truck, which I purchased from you through the Durston Sales Company of Syracuse on April 3rd, 1924.

I am including with this letter a list of my total tonnage carried, number of trips made, actual repair costs and my average gasoline mileage and oil consumption. Also some very interesting information in reference to tire mileage.

I am extending this information to you unsolicited for you to use in any manner which would be advantageous, and I would be perfectly willing to verify this letter and statements to any of your future prospects that are desirous of obtaining some real information regarding costs and services rendered by Sanford trucks.

Trusting that I can be of some further assistance to you, and assuring you that my next truck to be purchased will be none other than a Sanford, I am

Sincerely yours,

Frank William Douglas

Why Douglas says "It's a HE truck!"

MILES: Drove 61,206.5 miles in 272 consecutive days. Total trips, 276. Average miles per day, 221.51.

HAULED: 1,290,364 pounds of freight.

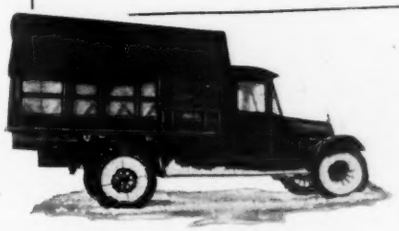
LOAD: Average load, 4,639 pounds.

TIRE MILEAGE: 28,000 miles on two original tires.
31,000 on one original tire.
61,206.5 on one original tire.

GAS MILEAGE: 15.9 miles to every gallon.

OIL MILEAGE: 800 miles to every pint of oil.

REPAIR COSTS: Total during 61,206.5 miles, $40.25



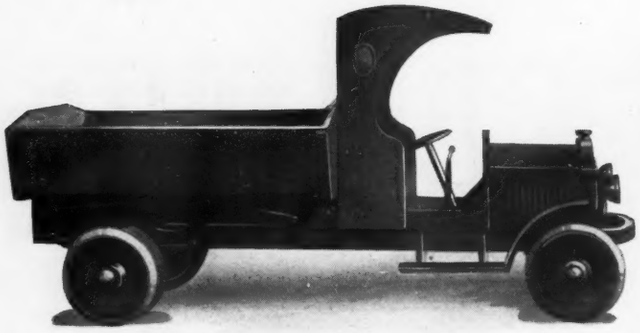
Frank Douglas operates a 7-day-a-week express line between Watertown and Syracuse, N. Y.

Sanford Motor Trucks

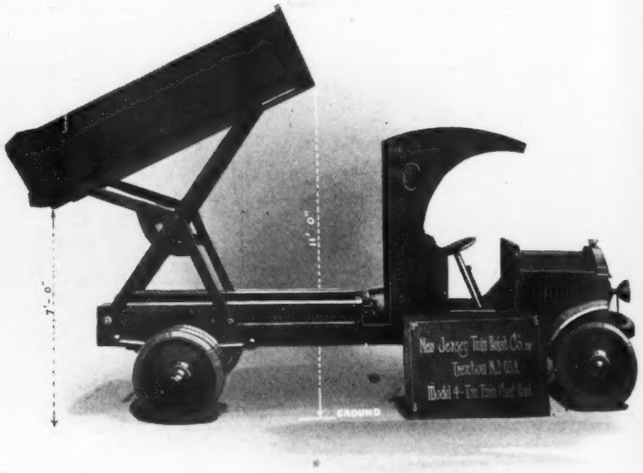
Sanford Motor Truck Co.

Main Office and Factory:
Syracuse, N. Y.

Boston Branch: 916 Commonwealth Avenue, Boston, Mass.



The Twin High Hoist on a Four-Ton Coal Truck gives remarkable clearance for overhead loading.



When elevated, the load is carried directly over the rear axle with a four-point bearing. Operates from the cab, with automatic stop at top and bottom.

Wanted—
a Manufacturer

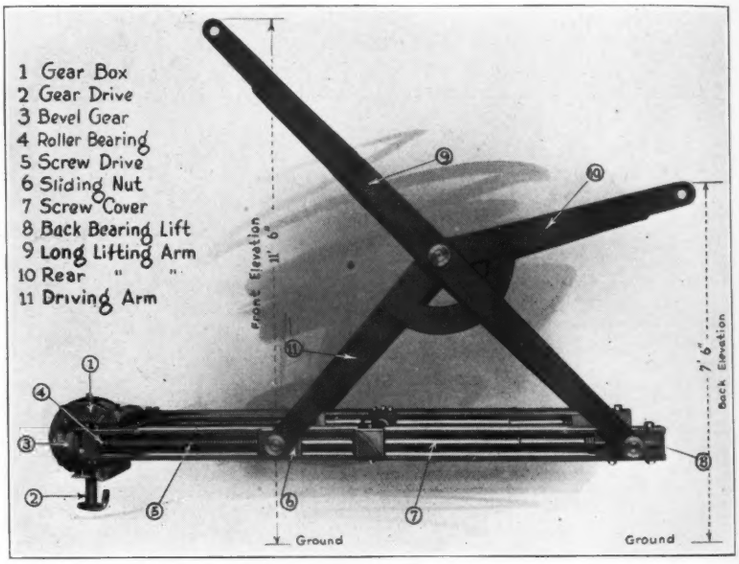
We own the materials, patterns, castings, drawings, and patent rights for the manufacture of *Twin High Hoist and Dump.*

We wish to enter into negotiations with a reputable manufacturer, with a view to carrying on our enterprise. We are induced to make this move following the death of the designer and manager.

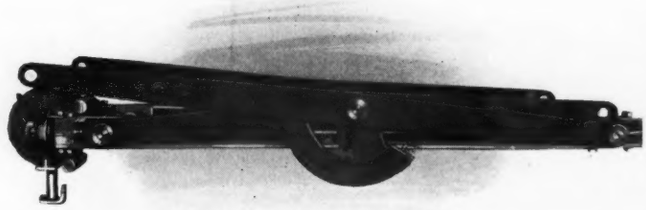
This superior mechanical hoisting device is applicable to coal bodies and dump bodies, is positive in operation, simple in construction and durable under constant strain. It is adaptable to any size of truck, from one to eight tons, and can be operated by any make of power take-off.

Special hopper device for chuting coal from bottom of body without backing to curb.

Full information will be gladly supplied to responsible parties.



No chains, no cables, no gears, no arms exposed. Goes up or down only under power. Road clearance 11 ft. in front, 7 ft. in back. Angle 22°.



Compact when lowered. Body rests 8 inches above chassis. Great strength, light weight.

New Jersey Twin Hoist Company

4-12 Wood Street **Trenton, New Jersey**

SPEED POWER AND DURABILITY

They Do More Work *and* Save More Money

Fleet operators, large and small, are finding that fewer Overland Spads will do their work and do it better, for Overland stays everlastingly on the job and stays there without the constant repair shop attention that eats into profits.

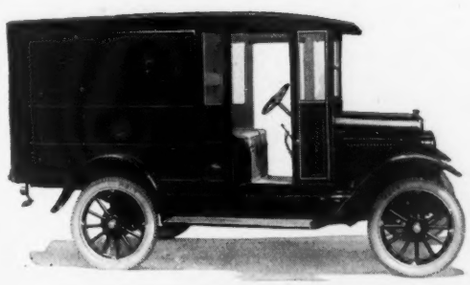
The Austin Laundry and Dry Cleaning Company of Austin, Texas, started with a few Overlands and now has thirteen in its service.

"From a standpoint of efficiency," they write, "the Overland is better than any make of car I have ever used in this line of work, and I find also that I can run the Overland much cheaper per mile on the general average. In fact, there is no other car I would be willing to change to since I have had such good results from the Overland during the past four years I have been running them."

There's an Overland Spad body for every business need. Four standard bodies with variations that give in effect sixteen different combinations. All built with an eye to stability and long life—braced, ironed, glued, screwed to resist all shocks and jars.

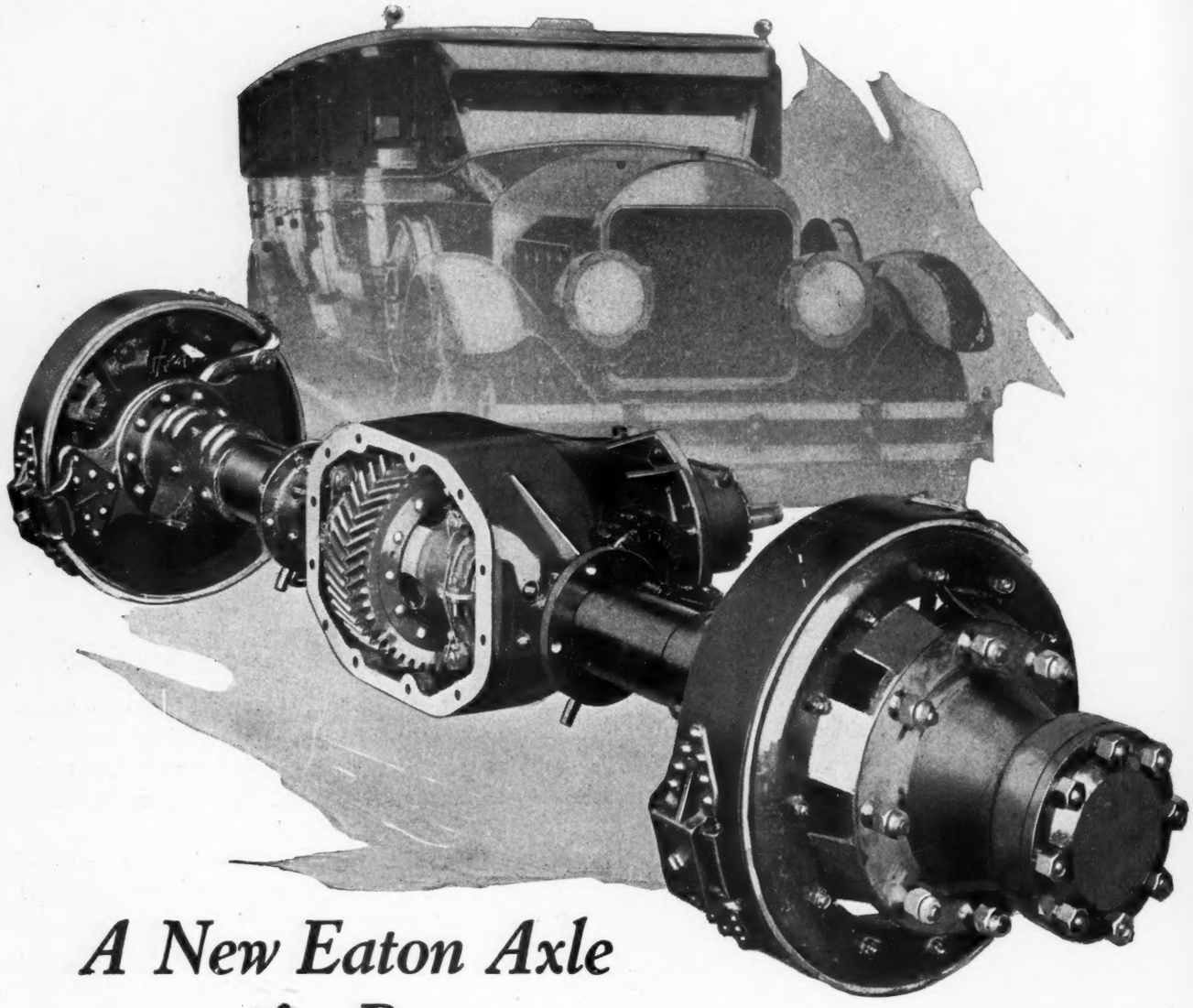
Powered by the famous Overland engine—sturdy, dependable, economical. With a chassis equally fine—heavier frame and axles and the amazing buoyancy of patented Triplex Springs that save the load and the car from road shocks.

Write for details and prices, and see where Overland will fit into *your* business.



WILLYS-OVERLAND, INC., TOLEDO, OHIO
Willys-Overland Sales Co. Ltd., Toronto, Canada

OVERLAND SPAD



A New Eaton Axle —for Busses

THE new Eaton "Model 60000" is a double-reduction, full floating Bus Axle, operating thru spiral-bevel and herring-bone gears. It provides for great ground and body clearance, the over-all depth of housing being 13½ inches, which gives a ground clearance of 11¼ inches with 36-inch tires.

Oversize ball and taper bearings assure silent running and a long life without adjustments. It has attachment for air cylinder to operate brakes; hubs made to accommodate demountable disc wheels, and other features particularly interesting to Bus builders and users. *Write for Blue Prints and Full Specifications*

Specifications in Brief

Type—Double reduction full floating axle. 1st reduction thru spiral-bevel, 2d thru herring-bone gears.

Load Carrying Construction—Cast steel center housing, heat treated. Alloy steel tubes, heat treated and swedged down at outer ends onto which wheel bearings are mounted.

Clearance—The Gears are mounted in plane providing great ground and body clearance. Over-all depth of housing 13½ inches. Ground clearance 11¼ inches with 36 inch tires.

Mounting — Provides for either Hotchkiss Drive or Torque Arm.

Bearings — Driving units mounted on oversize ball bearings, wheels on oversize taper bearings.

Capacity—Axle Spring Pad capacity 12000 lbs., torque 22000 inch—pounds. Approximate allowable motor displacement 590 cubic inches.

Tires — Suitable for dual 36x6 inch or dual 34x7 inch with internal brake.

Weight—990 lbs. including hubs and drums.

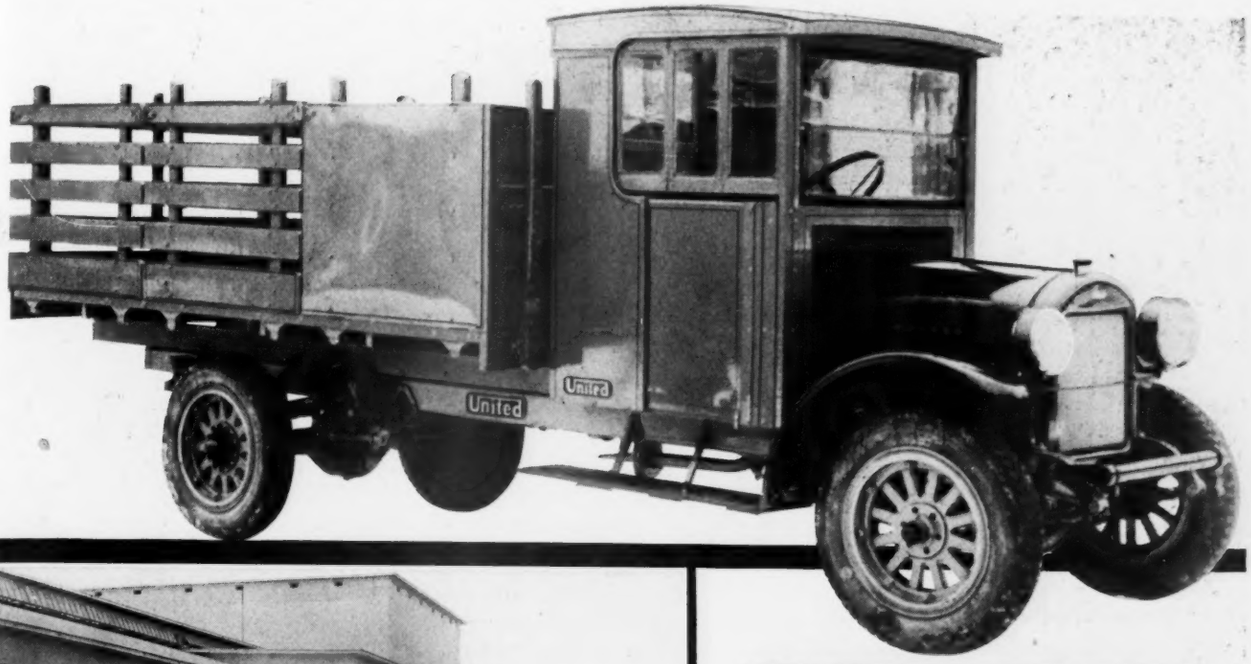
Available Ratios — 4½ to 1 to 7½ to 1.

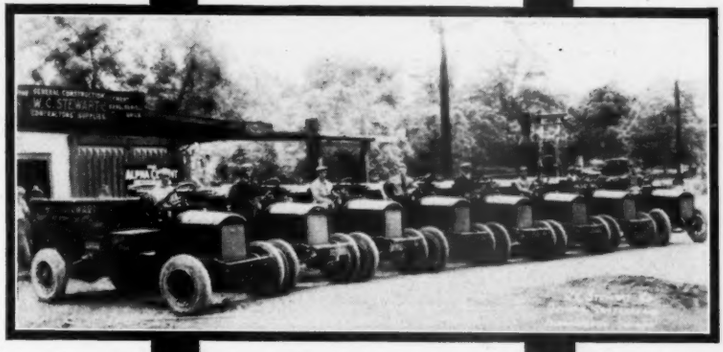
Miscellaneous—Attachment for Air Cylinder to operate brakes. Hubs are made to accommodate Disc Wheels.

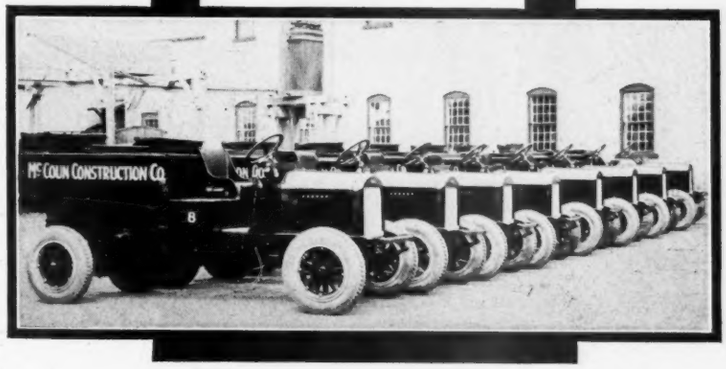
THE EATON AXLE & SPRING COMPANY, CLEVELAND

Eaton Axles · Eaton Bumpers · Perfection Springs

EATON AXLES







United

CONSERVATIVE PROGRESSIVENESS

The United Motors Products Company has been building quality truck units for fifteen years.

During that time its growth has been steady and sure until today United commercial vehicles are doing duty in practically every trading center in the country.

We believe that an important factor in the success of the United has been our willingness to adopt any new features of design or construction that would add to its efficiency, and our swift rejection of any that do not come up to the standards of quality that we have set for our product.

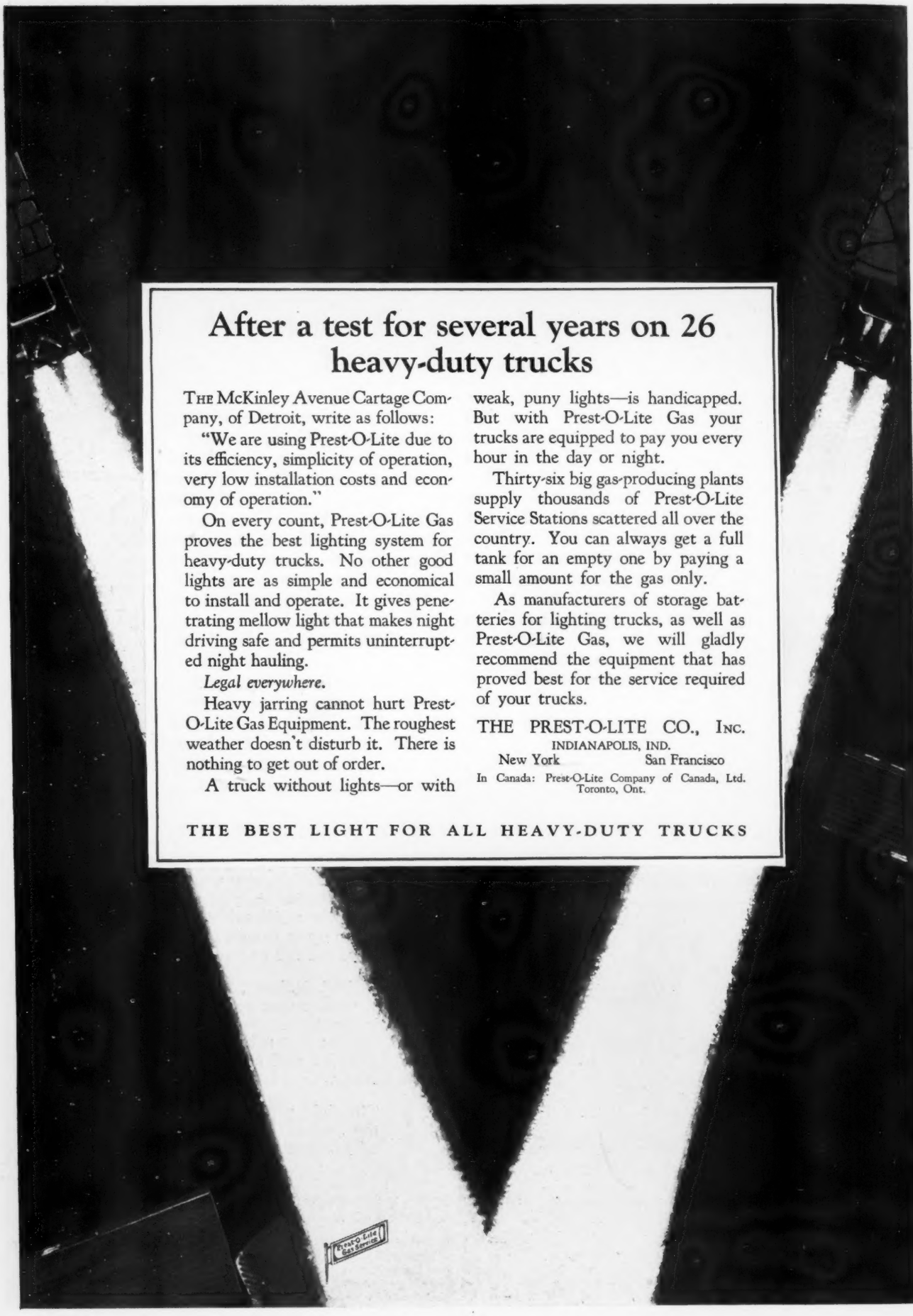
United dealers have learned that they may depend on us to keep the quality up, and know that when they sell a United, they can deliver a truck that will bear out every promise and every claim they have made for it.

The right sort of dealers in territories where the United is not represented, will find it advantageous to write us now.

UNITED MOTORS PRODUCTS COMPANY

GRAND RAPIDS MICHIGAN

"QUALITY TRUCKS SINCE 1910"



After a test for several years on 26 heavy-duty trucks

THE McKinley Avenue Cartage Company, of Detroit, write as follows:

"We are using Prest-O-Lite due to its efficiency, simplicity of operation, very low installation costs and economy of operation."

On every count, Prest-O-Lite Gas proves the best lighting system for heavy-duty trucks. No other good lights are as simple and economical to install and operate. It gives penetrating mellow light that makes night driving safe and permits uninterrupted night hauling.

Legal everywhere.

Heavy jarring cannot hurt Prest-O-Lite Gas Equipment. The roughest weather doesn't disturb it. There is nothing to get out of order.

A truck without lights—or with weak, puny lights—is handicapped. But with Prest-O-Lite Gas your trucks are equipped to pay you every hour in the day or night.

Thirty-six big gas-producing plants supply thousands of Prest-O-Lite Service Stations scattered all over the country. You can always get a full tank for an empty one by paying a small amount for the gas only.

As manufacturers of storage batteries for lighting trucks, as well as Prest-O-Lite Gas, we will gladly recommend the equipment that has proved best for the service required of your trucks.

THE PREST-O-LITE CO., INC.
INDIANAPOLIS, IND.
New York San Francisco
In Canada: Prest-O-Lite Company of Canada, Ltd.
Toronto, Ont.

THE BEST LIGHT FOR ALL HEAVY-DUTY TRUCKS

After dark, what happens to your ton-mile costs?

WITHOUT lights—or with lights that are weak and puny—your ton-mile costs rise as the sun goes down. A truck so handicapped cannot maintain the pace that pays.

But with Prest-O-Lite Gas, your trucks are equipped to make night hauling really profitable. Its full, dependable light bores through darkness, storm and fog, bringing increased speed and added safety. Your trucks can work by night whenever needed, which considerably reduces their costs per ton-mile and increases the return on your investment.

This ability to increase the earning power of a truck has made Prest-O-Lite Gas the standard lighting equipment for efficient heavy-duty operation. Where ton-mile costs are kept down and maintenance expense is carefully watched, Prest-O-Lite Gas is the chosen light—that's why you find so many of America's finest fleets are using Prest-O-Lite Gas to put daylight profits into night work.

To truck dealers

Your customers look to you for equipment advice. Guarantee them absolute lighting satisfaction by selling them Prest-O-Lite Gas. Its faithful performance makes friends for you. No "servicing" some lighting system not suited for heavy-duty trucks. And, by keeping Prest-O-Lite Gas in stock, you build up a profitable business in tank exchanges. *Write for our dealer proposition.*

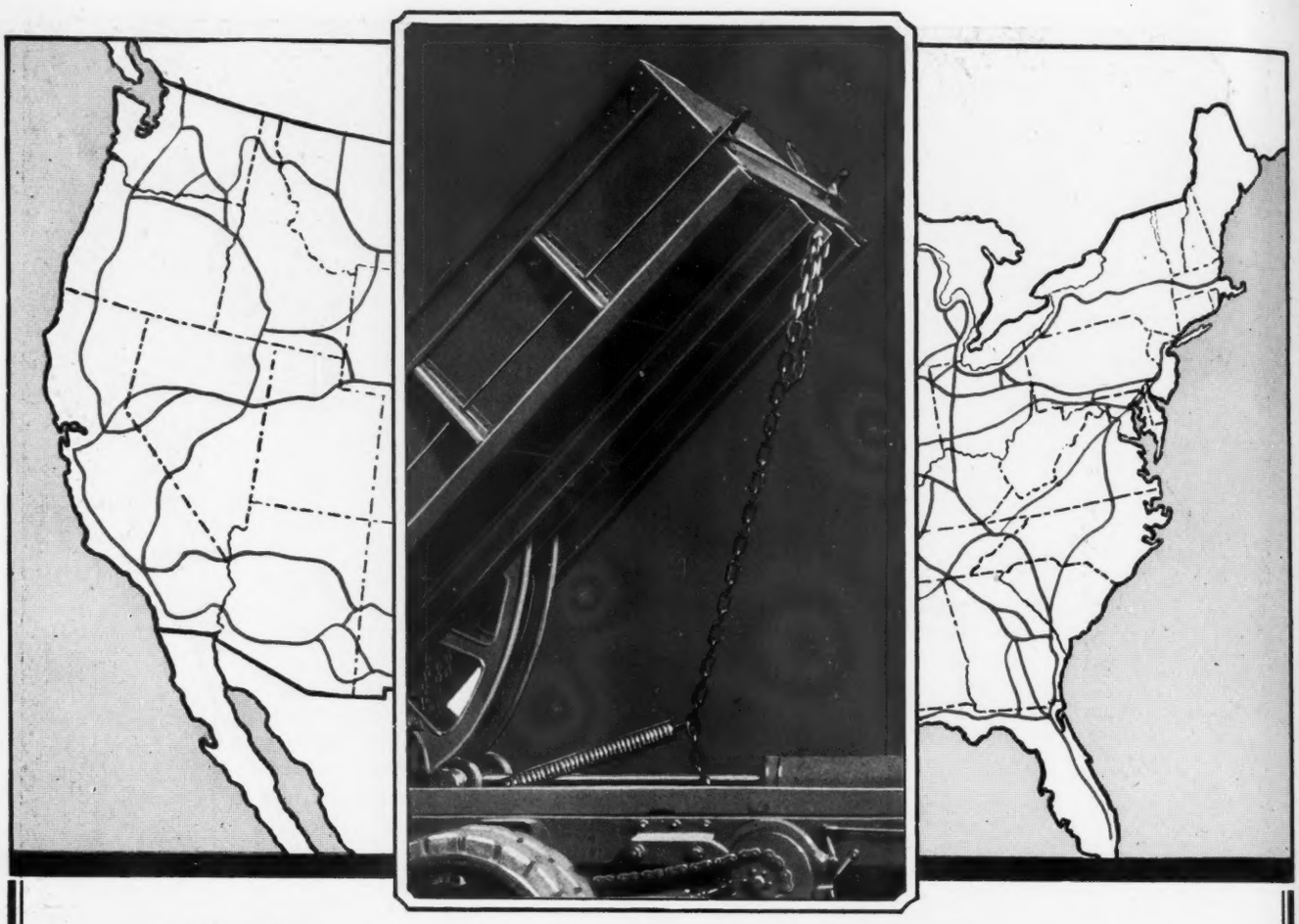
Prest-O-Lite Gas

THE BEST LIGHT FOR ALL HEAVY-DUTY TRUCKS

A Prest-O-Lite PRODUCT

WORLD'S LARGEST MANUFACTURER OF ACETYLENE THE GAS OF A THOUSAND USES

BATTERIES FOR AUTOMOBILES, FARM LIGHTING, RAILWAY SIGNALS AND RADIO



THE PIONEER ROAD BUILDER

WOOD UNDERBODY

Hydraulic Hoists and Steel Bodies

Sales and Service:

Atlanta	Milwaukee
Baltimore	Minneapolis
Boston	New York
Buffalo	Philadelphia
Chicago	Pittsburgh
Cincinnati	Richmond
Cleveland	St. Louis
Columbus	San Francisco
Dallas	Seattle
Denver	Toledo
Fort Wayne	Washington
Harrisburg	Windsor, Ontario
Indianapolis	Paris, France
Jacksonville	Southport, England
Kansas City	Barcelona, Spain
Knoxville	Hamburg, Germany
Los Angeles	Geneva, Switzerland
Louisvillle	Sydney, Australia

Factories:

DETROIT, MICHIGAN
WINDSOR, ONTARIO
SOUTHPORT, ENGLAND
PARIS, FRANCE

It has been aptly said that the whole national system of good roads has come out of dump trucks. Wood Hydraulic Hoists were conceived in the early days of the motor truck industry. They have played a vitally important part in the construction of our ever growing net work of transcontinental highways.

Their unfaltering service, day after day, is directly due to their simple construction. There is nothing to get out of order—just a piston and two steel pump gears operating in oil—these make up the vital moving parts.

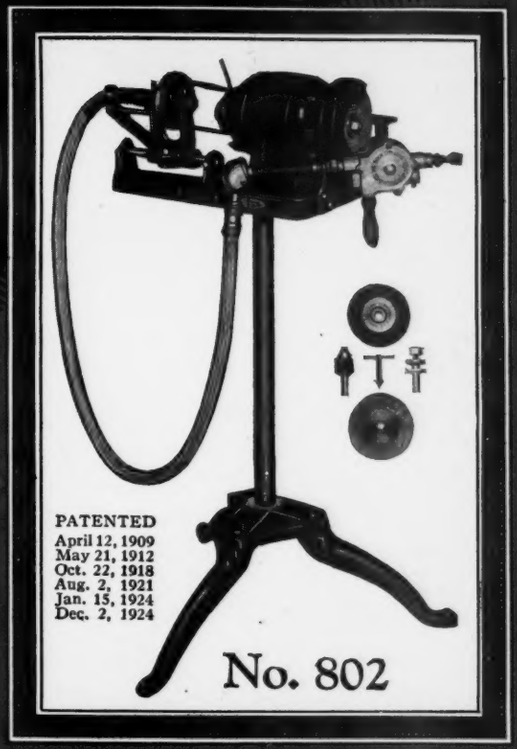
Any hoist that meets the rigid requirements of road building most certainly merits your consideration. Wood Hydraulic Hoists do.

WOOD HYDRAULIC HOIST & BODY COMPANY

World's Largest Maker of Hydraulic Hoists and Steel Dump Bodies

7944 RIOPELLE STREET, DETROIT, MICHIGAN

A Hoist on Every Truck



SIOUX

Trade Mark Reg. U.S. Patent Office

Handy Power for Cramped Quarters!

PLACES that are unusually hard to get at with ordinary power tools *are easily and quickly accessible with this flexible shaft!*

You can hold it up steadily without breaking your back!

FLEXIBLE SHAFT AND ATTACHMENTS

You can use it in difficult places in which you couldn't get at the work with any other method. It often saves the trouble of detaching the motor from chassis.

It pays for itself in valve-grinding, carbon cleaning, polishing, drilling, paint removing, tire-buffing, emery wheel grinding, etc.

For valve-lapping, the Sioux Flexible Shaft has advantages not found in any other machine. *The three-speed pulley* makes it possible to adapt the correct speed to the size of the valve. Thus, for larger valves you can use the low speed in order to keep the grinding compound from caking and flying off. And you can use the higher speeds for smaller valves.

The clutch control makes it possible to stop the grinder instantly without shutting off the power.

The Sioux Flexible Shaft and Attachments are saving time and increasing profits in several thousand shops. Write for full information.

Your Jobber Sells Them

ALBERTSON & CO., SIOUX CITY, IOWA

The new Atterbury Highway Express

THE SPEED TRUCK THE NATION'S BUSINESS HAS WAITED FOR

ATTERBURY

ESTABLISHED 1903

They looked for a year and finally chose the Atterbury

1½-2 ton	$2450
2½-3 ton	3575
3½-5 ton	4550
5-7 ton	5500

Freight and tax extra

Atterbury Motor Car Co.
Buffalo, New York

Give me the additional facts that sold the Zautner's on the Atterbury.

Name .....

Address .....

Ten years in the repair business made the Zautner Brothers of Schenectady *know trucks.* They had never sold trucks, but they had repaired them all.

About a year ago they began to think about selling trucks. They said, "The truck we sell has got to be as good as our service." It was an elimination contest to decide on the best. There was no hurry—they looked at them all and took months to do it.

They compared specifications of course. They watched Atterburys perform. They put Atterbury dealers through the third degree on profits. They made a trip to the factory. And now Schenectady's best known automotive shop displays the Atterbury.

The spring season is here so mail the coupon and get the whole Zautner story.

ATTERBURY MOTOR CAR CO.

Hertel Ave. at Elmwood **Buffalo, N. Y.**

INDIA TIRES

WHY are 60% of all India Tires used on commercial vehicles when none are supplied as "original equipment"?

The man who keeps the mileage record can tell you.

The Extra Miles
Cost No More

THE INDIA TIRE & RUBBER CO.
AKRON OHIO

(J-55)

Surely, They Know

During 1924 New York City bought 130 GMC Trucks. This record is remarkable, even for GMC.

The experienced transportation buyers of Metropolitan New York have an unequaled opportunity to study truck performance. Surely they know, better than almost anyone else, which truck does better work.

Strict adherence to quality ideals, plus ability and resources to accomplish the desired result, have brought leadership in truck building—and in truck selling—to GMC.

GENERAL MOTORS TRUCK COMPANY
Division of General Motors Corporation
PONTIAC, MICHIGAN

Mighty Hard to Sell Any Other Hoist Around Here!

SHIGLEY-TRUE MOTOR CO.
GENERAL REPAIRING AND REBUILDING
BARTLESVILLE, OKLA.

Columbian Steel Tank Co.,
Kansas City, Mo.
Gentlemen:

Answering your letter of the 25th as to whether the Columbian Lightning Hand Hoists are giving satisfaction, wish to say we have never heard one of our customers complain about them, and it would be mighty hard to sell any other kind of hand hoist around here.

They are simple, strong and durable and there is nothing to get out of order about them. They just dump the load, let it down and go after another with no delay.

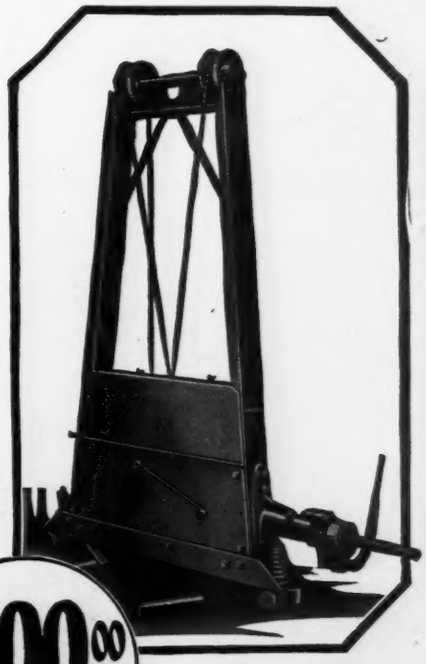
Yours Respectfully,
Shigley-True Motor Co.
By F. E. Pomeroy

FROM the truck dealer's standpoint, the letter above says all there is to say about the Columbian Lightning Hand Hoist.

Dependable. It helps sell the truck. As Mr. Pomeroy says, "We have never heard one of our customers complain about them!"

Free from trouble, they "stay sold." No wonder it would be "mighty hard to sell any other kind of hand hoist around here!"

Sell the job complete. It's easier. And there's a profit in this hoist that makes it pay. Write today for our plan. You may have a dump job to quote on tomorrow.



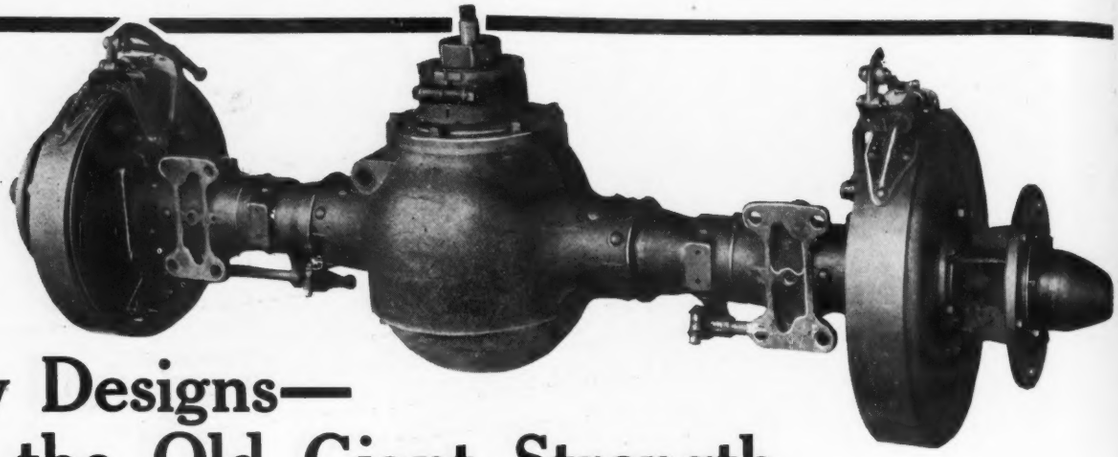
$100.00 F·O·B KANSAS CITY

CAPACITY 5 TONS OR MORE

Dump Bodies; Steel Commercial Bodies; Truck Tanks; Underground Tanks; Pumps; Barrels; Buckets; Funnels; Carrying Cans; Portable Buildings; Plates; Sheets; Angles, Etc.

COLUMBIAN STEEL TANK COMPANY
1607 West 12th Street Kansas City, U. S. A.

COLUMBIAN TANKS FOR THE WORLD
Lightning Hand Hoists



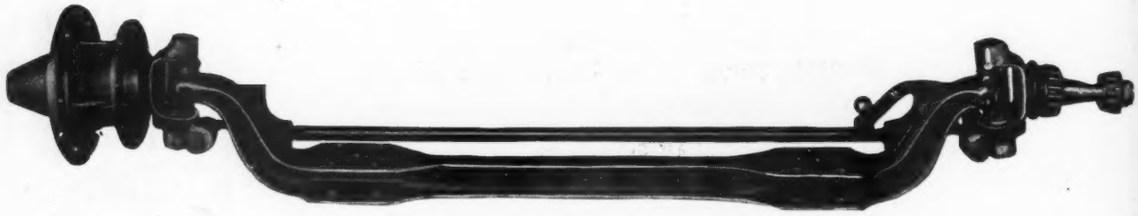
New Designs—
But the Old Giant Strength

Modern Flint Axle designs are working wonders in the latest types of truck and bus. Gear ratios have been modified, changes and improvements made.

But for carrying the load and wearing long, these new designs belong to the sturdy line of Flint Axles that stretches over 24 years from the days of the horseless carriage.

Builders and repairmen like the simplicity of Flint Axles. Owners like the economy.

Send for information on front or rear axles of any capacity.



Flint Motor Axle Company
Flint, Michigan

FLINT MOTOR AXLES

Your real profits begin with the *second* truck sale

Why do Pierce-Arrow truck dealers renew their franchises year after year? Not because they find it a simple, easy job to sell new customers. It seldom *is* in the truck business. But once a Pierce-Arrow truck *does* get on the job it quickly establishes an unusually good opportunity for a *fleet* of Pierce-Arrow trucks.

Nobody can overlook Pierce-Arrow performance. It has come to be the standard by which motor trucks are judged. It is no wonder, then, that the Pierce-Arrow dealer gets a welcome reception when the owner of a Pierce-Arrow truck needs additional haulage equipment.

And right there is the reason why Pierce-Arrow dealers *remain* Pierce-Arrow dealers. They may find it just as difficult as any other dealer to make the *first* sale to a truck operator, but they find it far easier to make the *second* sale—and the *third*—and the *fourth*.

From your own experience you know that a dealer's one best bet for real profits lies in getting *fleet* business.

Suppose we discuss the matter and go into the many other valuable features of the Pierce-Arrow truck franchise?

Chassis Sizes: 2-ton 3-ton 4-ton 5-ton 7½-ton
Tractors: 3-ton 5-ton 7½-ton
Chassis prices range from $3300 to $5400
Six-Cylinder Motor Coach Chassis, $4600 and $4750
f. o. b. Buffalo, N. Y.
Terms if desired

THE PIERCE-ARROW MOTOR CAR COMPANY
Buffalo, N. Y.

(784)

When in Buffalo, visit the Pierce-Arrow factory. Capable guides will show you how Pierce-Arrow trucks and coaches are built.

Pierce Arrow

Dual-Valve Heavy Duty Trucks

You've got to have a Junk-Pile to give Real Service!

YOU'VE pulled the valves out of a lot of trucks, and noticed the effects of various combinations of engine design, valve quality, and driver abuse. Few used valves are free from the tell-tale scars of punishment.

What do you do with valves that have seen their best days? The owner doesn't care anything about them, if new ones will give him *better* results. He won't insist on regrinding to the last feather-edge, if new ones will give him more *permanent* results.

Put the old valves on your junk-pile. Your customer wants the quick, responsive, reliable *power* that you can give him best with brand new Thompson Silcrome Valves. And you want him to say that he got *real service* in *your* shop.

You're absolutely certain of an enthusiastic customer when you put in Thompson Silcrome Valves. They're standard equipment in the very best cars and trucks made; the only valves that have ever been able to stand

Thompson

the gaff successfully in airplanes, racing cars, and motorcycles; and they show extraordinary resistance to burning heat, warping and wear.

Leading jobbers stock them for all makes and models of trucks—regular stems and oversize. Don't order just "valves"—specify Thompson Silcrome Valves.

THOMPSON PRODUCTS, INC., CLEVELAND

Also Manufacturers of Tappets, King Bolts, Tie-Rod Bolts, Spring Bolts, Bushings and Starting Cranks

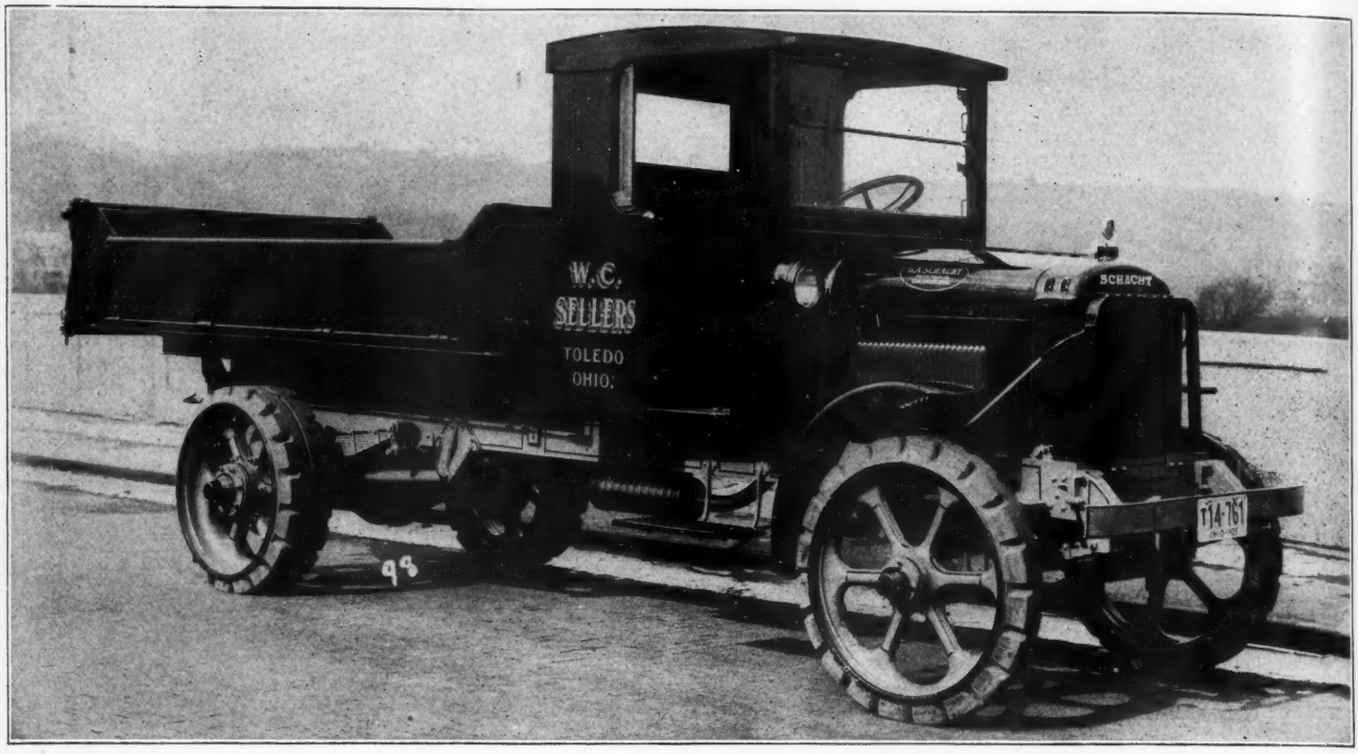
EXPORT DEPARTMENT: 130 West 42d St., New York, U. S. A.

CABLE ADDRESS: "THOMPRO—NEW YORK"

TRADE MARK

Thompson Silcrome Valves are used for original equipment by more than sixty of the leading builders of automobiles, trucks, tractors, airplanes and motorcycles.

Silcrome Valves



Announcing the Schacht 3½-Ton Dump Special

HERE is an actual reproduction of the SCHACHT 3½-Ton Dump Special—the new double reduction job with a 5-ton engine, that is making a big hit with contractors and road builders, especially in states where the maximum weight of truck and load allowed by law is limited to a gross tonnage that will not permit a 5-ton pay load on the average 5-ton truck.

The SCHACHT 3½-Ton Dump Special will carry five tons easily, safely, and with the SCHACHT TEN SPEED transmission, ***anywhere*** within the range of truck operation. Here is a dump truck that meets every requirement of the truck operator from the standpoint of power, speed and carrying capacity, and also the requirements of those states where weight restrictions are proving a serious handicap to the owners of heavier units.

Investigate the SCHACHT 3½-Ton Special before you buy any other truck. It's the best dump job that was ever built to carry a 5-ton load.

DEALERS: You can sell this truck with a single demonstration to interested prospects. It's a real winner. Get our proposition.

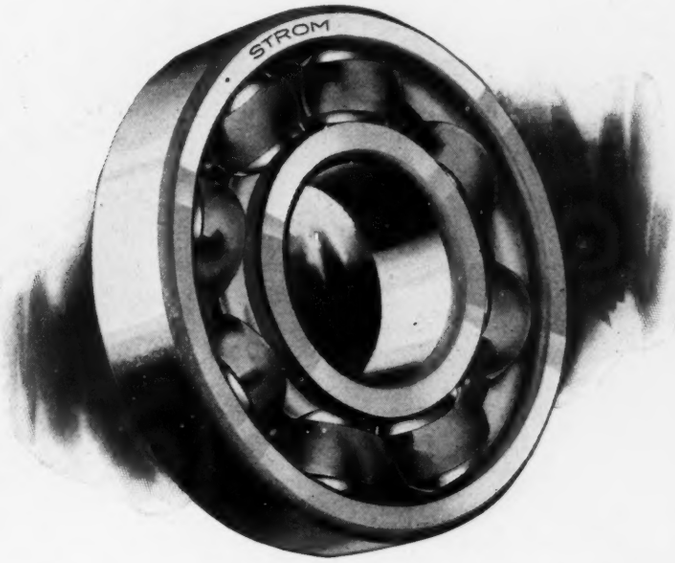
The G. A. Schacht Motor Truck Company

Factory: CINCINNATI, OHIO

New York Branch: 220-228 Thirteenth Street, Long Island City

SCHACHT Ten Speed TRUCKS

SEND FOR SUPER-STROM DATA BOOKLET



The New Super-Strom

Immediately Accepted!

IN the short time since we announced the New Super-Strom, we have received a record-breaking number of inquiries about this new ball bearing. It has been endorsed and is being used by a gratifying number of old and new customers.

Why? Because bearing users are looking for a ball bearing of the deep-groove type without filling slots, which will carry greater loads.

The Super-Strom is a deep-groove type ball bearing without filling slots. It has increased load-carrying capacities, due to the use of larger or more balls, according to bearing size.

It has extreme dimensional accuracy—minimum eccentricities and tolerances. Husky retainers—accurately pressed—rigidly riveted. Special ball bearing steel, heat-treated by improved methods, insures exceptional durability.

Super-Strom Ball Bearings are available *now* in quantity production, with the Strom service back of them.

If you haven't received your copy of the booklet describing the Super-Strom Ball Bearing, send this coupon.

STROM BALL BEARING MFG. CO.
4542 Palmer St., Chicago, Ill.
Send Super-Strom Data Booklet.

Name.....

Position.....

Company.....

Address.....

City..... *State*.....

Strom BALL BEARINGS

STROM BALL BEARING MFG. CO., 4542 **Palmer St., Chicago, Illinois**

Original Bosch Automotive Equipment is identified by the trade mark shown above and the full name, "Robert Bosch". Be sure to specify "Robert Bosch" when ordering. Only then can you be sure of getting *original* and genuine Bosch quality as known the world over since 1887.

There is more than just "money profit" for you

in selling the Original Bosch Horn

Today, due to the high quality standards that have been set by the industry, the advantages of selling products of known reputation are more than ever apparent.

The progressive automotive merchant is constantly on the watch for quality products that will net him good profits and, at the same time, help him build up a quality reputation in his community.

That is why dealers everywhere have been quick to receive the Robert Bosch Horn and to offer it to their trade.

The Robert Bosch Horn, (an *original* Bosch product), is already on thousands of fine motor cars. The musical, penetrating tone of this new high-frequency warning signal compels attention whether in crowded thoroughfares or on far-flung country roads.

It is suited, alike, to fine motor cars, motor busses, commercial cars, taxicabs and motor boats. Write for price schedules and agency details on Robert Bosch Automotive Equipment.

NEW PRICES
The Robert Bosch Horn is made in three sizes—one quality.

"Junior"	*now*	$16
"Standard"	*now*	21
"Master"	*now*	25

(LIST PRICES)

Robert Bosch Magneto Co., Inc. (Otto Heins, President), 119e West 64th Street, New York, N.Y. Chicago Branch: 1302 South Wabash Avenue.

Bosch

ROBERT BOSCH MAGNETO COMPANY, INC.

Heavy Duty Hauling
Calls for
Special Carburetor Construction

The Stromberg Special Heavy Duty Bus and Truck Carburetor has the same special features which have marked the success of the Stromberg Carburetor now standard equipment on 131 high grade pleasure cars.

All parts are of rugged construction.

An "oversize" carburetor designed to withstand exceptionally hard service and wear.

The Stromberg accelerating well assures perfect operation on busses.

Has large strainer easily removed for cleaning.

Aeroplane type float.

Withstands excessive vibration without flooding.

The Stromberg Economizer means maximum economy.

More power and better performance is in evidence wherever this carburetor is installed.

DEALERS—*write or wire for attractive sales proposition. Some desirable territory is still available for dealers who are progressive and want to go after the bulk of business in their locality.*

THE STROMBERG MOTOR DEVICES COMPANY
70 East 25th Street
CHICAGO

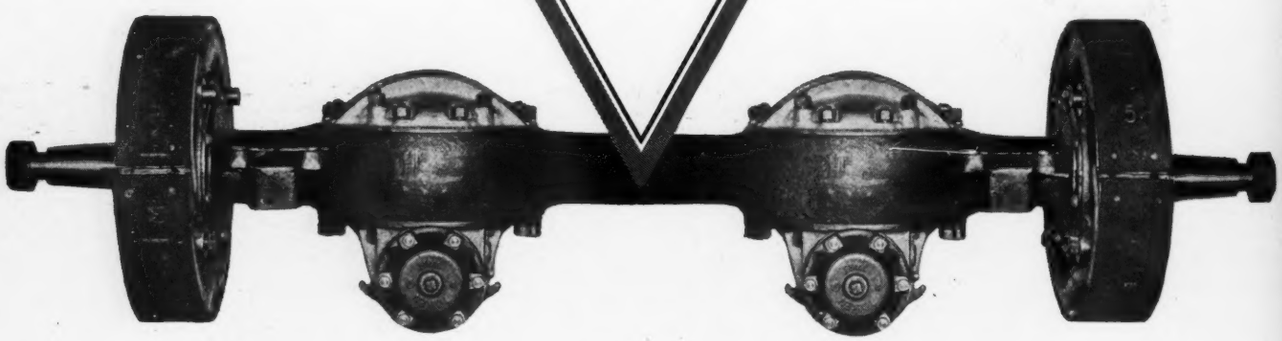
TIMKEN

And Now the Gas-Electric

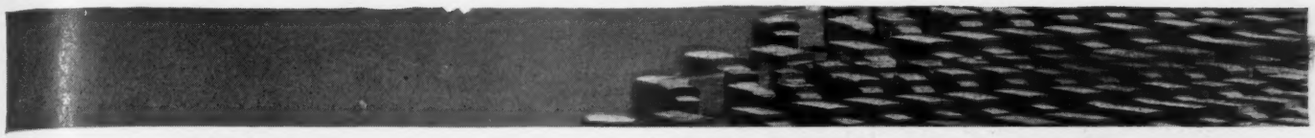
The 250 gas-electric Yellow Coaches being built for the Philadelphia Rural Transit Co. (Mitten Management) have Timken Worm-Drive Axles. These were specially designed for the Yellow Coach Manufacturing Co., all of whose axles are built by

Timken

The Timken-Detroit Axle Company
Detroit, Michigan



AXLES



How Old is a 7-Year-Old Electric Truck?

Somebody made a count of the electric street trucks in New York City that are seven years old, or older. Here's the result:

7 years old	2,899 trucks	14 years old	221 trucks
8 years old	2,448 trucks	15 years old	156 trucks
9 years old	2,044 trucks	16 years old	132 trucks
10 years old	1,580 trucks	17 years old	116 trucks
11 years old	1,285 trucks	18 years old	74 trucks
12 years old	980 trucks	19 years old	33 trucks
13 years old	395 trucks	20 years old	25 trucks

ONLY a few trucks were being *made* in the early years of the industry; what few were made *lasted,* however. At seven years, the above record shows that life of an electric truck is merely well started.

Westinghouse has had a part in the above record. Twenty years ago Westinghouse motors, controllers and related apparatus were standard in the electric truck industry, as they are today. Use electric trucks for long-lived efficiency and economy. Specify Westinghouse equipment.

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY
EAST PITTSBURGH, PA.
Sales Offices in All Principal Cities of the United States and Foreign Countries
Tune in with KDKA — KYW — WBZ — KFKX

Westinghouse

Made right—
Sold right—
Kept right

The excellence of White Trucks begins with the purchase of materials. Every piece must meet stringent specifications set by our metallurgists and engineers. Then in the great White factory this carefully chosen material is brought together with skilled men and modern machines. Smooth, careful, economical production results.

White Trucks are sold for what it costs to build them, plus a fair profit. No sale is complete—single truck or fleet—until the purchaser's satisfaction is complete.

Making trucks right and selling trucks right has enabled The White Company to build up the organization which is your assurance that White Trucks will be kept right.

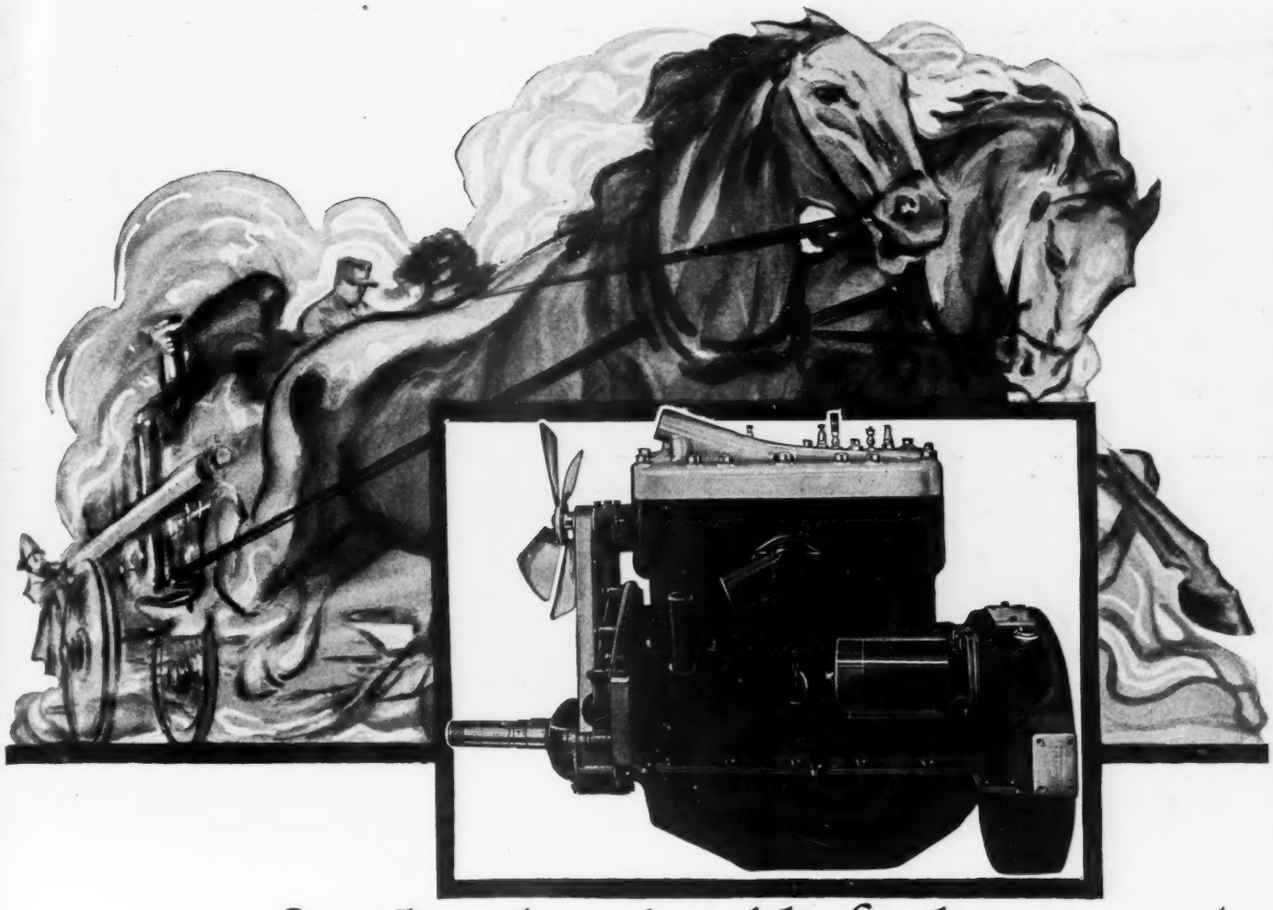
Chassis Prices

¾-Ton	$2,150
2-Ton	2,950
2½-Ton	3,750
3½-Ton	4,200
5-Ton	4,500
50-A Bus Chassis	4,950

(f. o. b. Cleveland)

THE WHITE COMPANY
CLEVELAND

WHITE TRUCKS



Speed truck engines, like fire horses, must be able to "pull and run"

IN the days before motorized fire apparatus, a wonderful breed of horses was developed—animals that combined great power to pull their heavy loads with a speed unusual in such size. Stout-hearted, deep-chested, they not only stood up under great strains, but fairly throve in a service whose faithful performance stamped these heroic steeds as the thoroughbreds of all four-footed burden bearers.

To live to a ripe old age, pulling true to the last, became traditional of the fire horses.

The task of the speed truck engine is akin to that of the fire horse. Strength to pull its load and speed to cover distance quickly; these two, coupled with mechanical vitality that keeps it faithfully to its task for thousands of miles, are the qualities essential to this service.

The success of Lycoming powered trucks reflects the care with which these ideals have been translated into engine design and construction.

From the specifications (a copy of which will be sent promptly, on request, to any truck manufacturer) you can confirm the soundness of design, but only by examination and test will you find out how outstanding is the mechanical vitality of the Lycoming Motor.

LYCOMING MANUFACTURING COMPANY
Makers of Fine Fours, Sixes and Eights-in-Line
WILLIAMSPORT, PENNSYLVANIA

LYCOMING
Motors

Commerce

Reorganized

ON February 26, 1925, the Commerce Motor Truck Company, of Ypsilanti, Michigan, was reorganized. The authorized capital stock was increased from $200,000 to $500,000.

Under the new organization, Commerce will continue the manufacture of the same dependable line of trucks and buses which has been so favorably received in the past.

The new capital brought into this company by the reorganization makes it possible for Commerce to improve and expand its service facilities, to increase and to stabilize production and to add largely to its distribution.

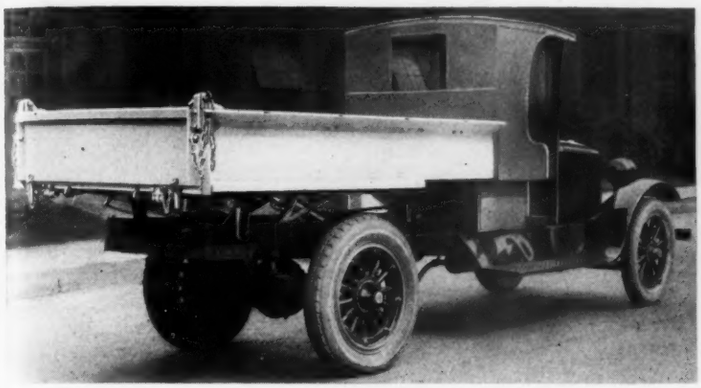
A limited number of additional dealers will be given an opportunity to take on the valuable Commerce franchise. If you are interested in such an opportunity, write for full particulars.

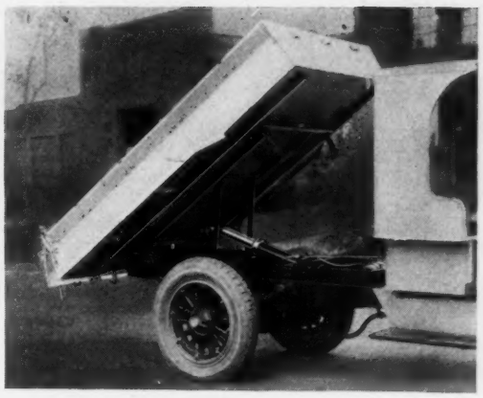
COMMERCE MOTOR TRUCK COMPANY
YPSILANTI, MICHIGAN

Export Dept.: 132 Nassau St., New York City. *Cable:* Comerstrux

New Officers and Directors

W. R. Bassick, *President* E. H. Graham, *Vice-President*
Edward S. Evans, *Treasurer* E. W. Bassick W. E. Parker, *Chairman of the Board*



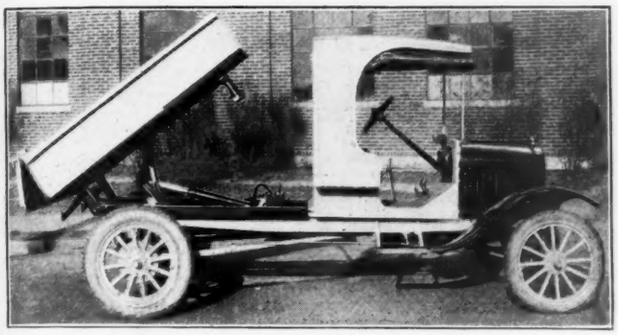


Trenton Model DG Hydraulic Hoist, 1 to 2 Ton, With Bodies in 1½, 2, 2½ Cubic Yard Capacities

TRENTON LINE DUMP BODIES

for

LIGHT DUTY TRUCKS



For the Ford Standard 1-Ton Truck: Trenton Model D Hydraulic Dump Bodies in 1, 1½, 2 Cu. Yard Capacities

Est. 1849

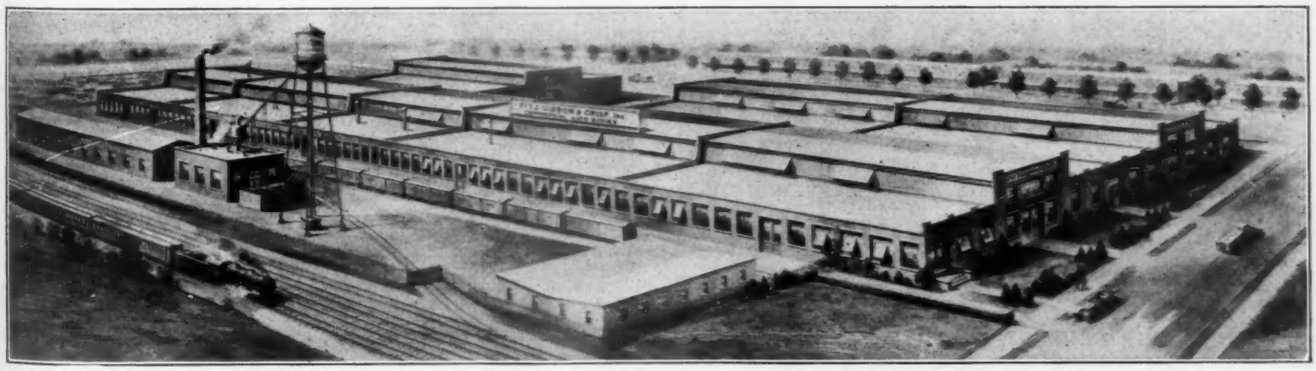
Our literature truthfully demonstrates that we have been eminently successful in achieving each of our desires. Why not write for a copy now while you are thinking of it?

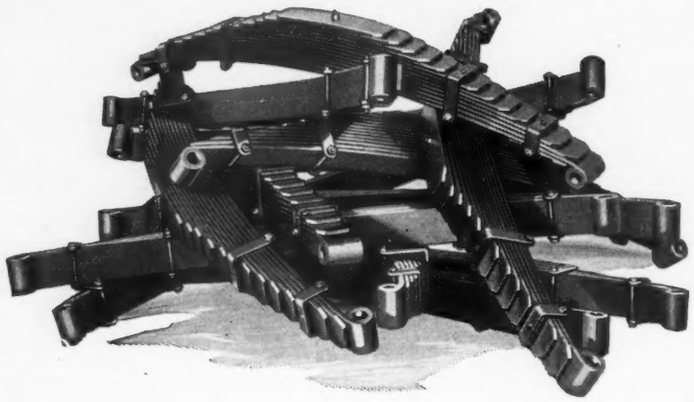
Each of our Dump Body Models has been designed and built with just two intentions:

To give you dealers and dump body distributors one model in each line or class which will perform more satisfactorily and more economically than any other of that type;

And which will sell at a price much lower than that of similar heavy-duty equipment.

Fitz Gibbon & Crisp, Inc.
Trenton, N. J.





THE SPRING IS THE THING

Mather Springs
Scientifically
Heat Treated

The
Mather Spring Co.
Toledo~Ohio.

MATHER SPRINGS

Selden Trucks

Dealers who want to expand their business and increase their yearly profits will read the following carefully

PACEMAKER, the 6-cylinder, 1¼-ton speed model. Not only is it the easiest handling truck built (ask any driver) but it is the easiest selling truck in its class (ask any Selden dealer). Quoting J. J. Aker, Selden dealer in Schenectady, N. Y., who sold twenty-one during the first two months of this year, besides larger models: "You don't have to sell Pacemakers, they sell themselves." Every PACEMAKER put in the user's hands is a *Pacemaker Salesman*.

ROADMASTER, the new 6-cylinder, 2¼-ton speed model. An advance step in motor truck construction. Built to supply the big demand which is rapidly increasing, for a high-grade, dependable motor truck to transport medium heavy loads at speeds up to 45 miles per hour. Completely equipped with electric lights and starter, pneumatic tires front and rear, sells at a moderate price.

The remarkable PERFORMANCE of the ROADMASTER places it in a class by itself. Loaded with 3½ tons, it covered 90 miles in 2 hours and 45 minutes.

HEAVY-DUTY MODELS. Six capacities ranging from two to seven tons, of the well-known and successful *Selden Flexible Construction,* which has stood the test of years of hard service and cut transportation costs.

Details of our selling plan will interest dealers who are earnestly seeking a real, merchandising proposition. Don't wait, write today

Selden Motor Trucks

1¼, 2, 2¼, 2½, 3, 3½, 4, 5-7 Tons and Buses

Manufactured in

ROCHESTER, N. Y.

Buda Powered Premier Cab, built by the Premier Motors, Inc., Indianapolis

Serving Well the Needs of Transportation

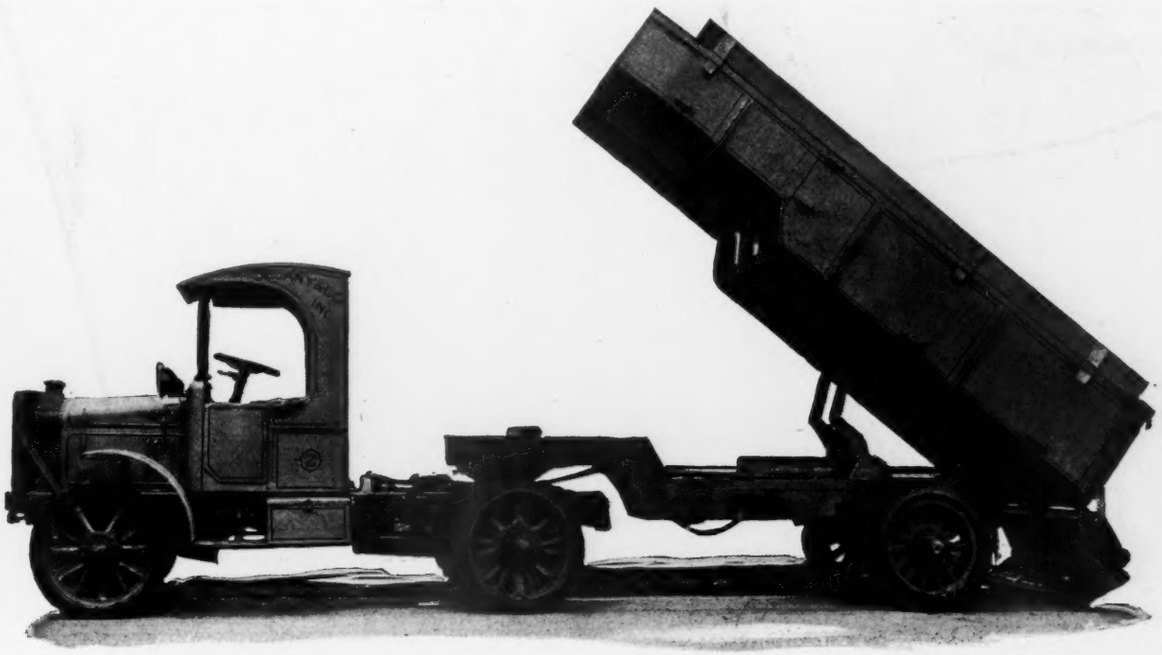
The great fleets of Buda powered Premier Cabs now operating in New York, Chicago, Philadelphia, St. Louis, Boston, San Francisco and other large cities of the United States go to show how widespread is the popularity of the Buda engine.

Throughout the entire country, in every branch of transportation — taxicab, motorbus, commercial truck — the Buda engine is steadily and sturdily piling up millions of economical, trouble-free miles, and adding new chapters every day to its enviable service record.

THE BUDA COMPANY, HARVEY CHICAGO SUBURB ILLINOIS
ESTABLISHED 1881

Buy only genuine Buda Parts for your Buda engine
New Parts Catalog No. 432 now ready

BUDA
The
ENGINE



A special **St. Paul Underbody Hydraulic Hoist** installation
for Delany & Company, Inc., Philadelphia, Pa.

The body is 190½" long, 84" wide and 32" high at the rear, and has a water level capacity of 250.3 cu. ft. or 10 yds. crowned.

The outfit consists of a Pierce-Arrow Tractor, a specially built Fruehauf drop frame Trailer and a Standard **St. Paul Heavy-Duty Underbody Hydraulic Hoist.**

It is used, in daily service, in handling refuse from the Delany plant, averaging more than 15 tons per load.

St. Paul Engineering Service is always available to aid in solving all problems encountered in load carriage and discharge.

A St. Paul *Installation for Every Purpose*

HYDRAULIC HOIST MANUFACTURING CO.

FACTORIES at St. Paul, Minnesota **DISTRIBUTORS and SERVICE STATIONS Everywhere**

Write for Name and Address of One Nearest You

St. Paul

VERTICAL AND UNDERBODY
HYDRAULIC HOISTS

"Best in the Long Run"

Stands Up Under Heavy Loads . . . "Equipped our 6½ ton Pierce Arrow Truck with four 40 x 7 Goodrich Tractor Type Truck Tires about a year ago . . . Service rendered satisfactory . . . Truck hauls a trailer . . . When both are loaded weight is about 14 tons . . . . Tires have gone nearly 14,000 miles, and still going strong . . . Best nonskid solid tires we ever used . . . No occasion to use chains." . . . **Essex Foundry, Newark, N. J.**

Heavy Hauler Recommends Tractors. "It has been our experience over a period of fourteen years as the heaviest haulers in this state that the Goodrich Tire is better able to carry a heavy load over all kinds of roads than any other tire we have been able to get hold of. We find the Tractor Type even more satisfactory. Since using same we have never had a road delay, which is so vital to the cost of heavy transportation, and we heartily recommend the use of this type of tire." **Allen Bros., Los Angeles, Calif.**

Hold in Snow . . . . . "One of the first sets of Goodrich Tractors on one of our heavy trucks has gone through fifteen months of steady service . . . This is a very good record in excavating work . . . Little or no sign of uneven wear . . . Have found them a very satisfactory non-skid tire through snow and mud." . . . **T. N. White Co., Chicago, Ill.**

PERFORMANCE has proved De Luxe Cushions [*Tractor Type*] are the tires for heavy service and long hauls . . . . Their outstanding economy is not an opinion, but a fact established in actual work, and recorded in the words of men who have seen and done the proving to their profit. . . . Any truck owner who has traction problems in excavating, or on steep grades and long hauls, should read how others have solved the same problems with Goodrich Tractors. There is profit in the reading.

To round out economical and efficient service in the operation of trucks and buses, Goodrich also provides the famous De Luxe solid smooth type, Goodrich Semi-Pneumatics and Goodrich Silvertown Heavy Duty Cords.

THE B. F. GOODRICH RUBBER COMPANY, *Akron, Ohio*
In Canada: The B. F. Goodrich Rubber Company, Ltd., Toronto

Goodrich
De Luxe CUSHIONS

"Satisfy"*

"We have been handling Service Trucks in Youngstown since February 1919—just six years. Up to date we have sold about 350 trucks, all of which are still in operation.

"As a business proposition, we would not consider any other truck franchise, for Service Trucks satisfy* their owners.

"Sixty per cent of our business last year was repeat orders—proof that after selling a customer one truck, it is an easy matter to build up truck fleets."

The above is from a letter written by the Service Truck Sales Co., Youngstown, Ohio.

Sixty per cent repeat orders! Couldn't you build a profitable truck business on such performance as that? Yet it is hardly up to the average. Two out of three new Service Trucks (made now) are sold to old, satisfied users. The Service Franchise may be available to you. There is open territory—but it is being closed rapidly. Write today for the Service proposition. It's a money maker.

SERVICE MOTORS, INC., WABASH, INDIANA

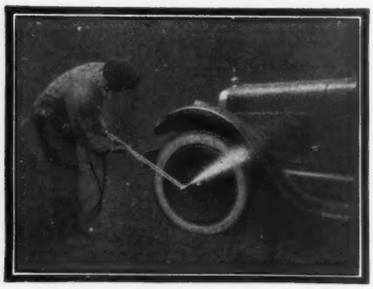
THE PYRAMID OF SERVICE

Service MOTOR TRUCKS

Counterbalanced Crankshaft—Heat Radiating Bearings

ALL THESE TRUCK SERVICE JOBS ARE DONE WITH A U. S.

The LB-5 U. S. Air Compressor saves money in truck service stations by handling service operations by *air pressure* in half the time it takes to do them by hand. The LB-5 does things no small Air Compressor can do through supplying a *tremendous volume of air!* With it time and labor are saved on the many different jobs listed below. The operating cost is low. Write for complete information.



Washing and Cleaning Cars With the U. S. Compressor

Clean engines.

Wash trucks.

Blow carbon after scraping.

Clear fuel and oil lines.

Test radiators, tanks and hollow shafts.

Dry wire wheels and chassis parts.

Clean stock bins, tool racks and display cases.

Dry gasoline tanks before soldering.

Clean generators, distributors, etc.

Dry assembled bearings after kerosene or acid bath.

Clean dust, bugs, twigs and road oil from radiators.

Clean complete motor.

Wash chains, springs, gears, bearings and similar parts.

Oil springs.

Spray suds or solvents.

Operate air torch using natural or manufactured gas, acetylene, prestolite, gasoline, vapor or other combustible fluids for melting, soldering and forge welding.

Operate air hammer.

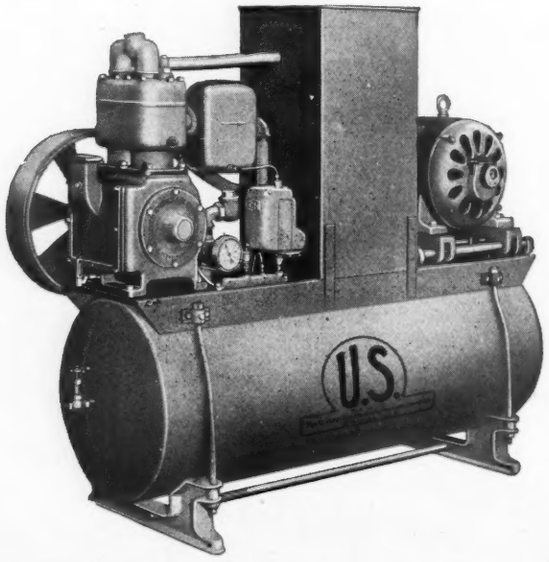
Operate pneumatic valve grinders.

Cleaning Engines With the U. S. Compressor

Operate chipping hammer for gear removal, bushing replacement, riveting and metal cutting and for cutting grooves in solid tires which have worn smooth.

Operate air jack, saving labor and time in servicing heavy trucks.

THE UNITED STATES AIR COMPRESSOR COMPANY
5310 Harvard Avenue, Cleveland, Ohio



U.S. Air Compressors

STRENGTH—LIGHT WEIGHT—DURABILITY

MACK *uses* DAYTONS

Dayton Steel Wheels are the logical wheels for Mack Trucks.

Each line of a Dayton Steel Wheel, like the line of a Mack Truck, suggests stamina and great strength.

The quality and treatment of the steel used throughout the construction of Mack Trucks are factors which foretell dependable performance and long life.

Dayton Steel Wheels are cast in one piece from highest grade electric furnace steel. Hub, rim and spokes are hollow. Some other wheels may cost less—they also do less.

Nearly all leading truck makers use Dayton Steel Wheels on all or part of their production. Specify them.

THE DAYTON STEEL FOUNDRY COMPANY, Dayton, Ohio

Dayton
Steel Truck Wheels
PATENTED

TIRE ECONOMY—ACCESSIBILITY—APPEARANCE

DIXON'S 677

For Transmissions and Differentials

Meets all requirements of a year-round lubricant.

Not affected by extremes of heat or cold, it will not stiffen and channel in cold weather and leave gears and bearings unprotected.

Dixon's 677 reduces power losses, eliminates strains and provides better and longer lubrication.

Write for Booklet 112-G and Dealer Proposition

Joseph Dixon Crucible Co.

Jersey City N. J. — Established 1827

NEW AND BETTER KNOCK-DOWN CAB

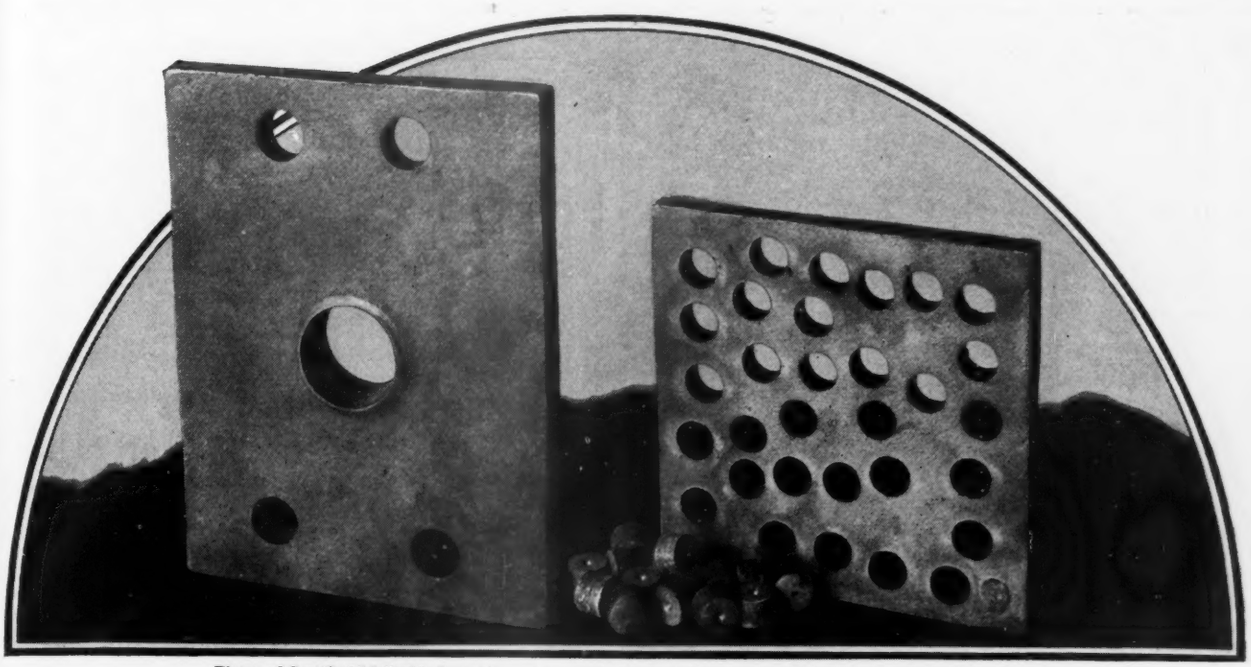
Made in six sections. Assembled by two men in less than one hour. Completely bolted and braced to insure maximum life and absolute quiet. Can be shipped at one-quarter the transportation cost of fully assembled cabs. Two sizes fit all chasses. Send for prices and specifications.

Weatherproof Body Corporation

Weatherproof

438 Shiawassee St. Corunna Michigan

Builders of Truck Cabs, Bus Bodies, Automobile Tops, Passenger and Commercial Bodies



Plates of Certified Malleable Iron after cold punching and drifting operations had been performed on them

Certificate Holders for the Quarter Ending December 31st, 1924

Albany Malleable Iron Co. ..... Voorheesville, N. Y.
Albion Malleable Iron Co. ..... Albion, Mich.
American Chain Co. ..... Bridgeport, Conn.
American Malleable Castings Co. ..... Marion, O.
American Malleables Co. ..... Lancaster, N. Y., and Owosso, Mich.
Badger Malleable & Mfg. Co. ..... South Milwaukee, Wis.
Belle City Malleable Iron Co. ..... Racine, Wis.
Chain Belt Co. ..... Milwaukee, Wis.
Chicago Malleable Castings Co. ..... West Pullman, Chicago, Ill.
Columbus Malleable Iron Co., The ..... Columbus, O.
Danville Malleable Iron Co. ..... Danville, Ill.
Dayton Malleable Iron Co. ..... Dayton, O., Ironton, O., and Canton, O.
Decatur Malleable Iron Co. ..... Decatur, Ill.
Devlin Mfg. Co., Thomas ..... Philadelphia, Pa.
Eastern Malleable Iron Co., The ..... Naugatuck Malleable Iron Works, Naugatuck, Conn.; Bridgeport Malleable Iron Works, Bridgeport, Conn.; Troy Malleable Iron Works, Troy, N. Y.; Wilmington Malleable Iron Works, Wilmington, Del.; Vulcan Iron Works, New Britain, Conn.
Erie Malleable Iron Co. ..... Erie, Pa.
Federal Malleable Co. ..... West Allis, Wis.
Fort Pitt Malleable Iron Co. ..... Pittsburgh, Pa.
Fraser & Jones Co. ..... Syracuse, N. Y.
General Electric Co. ..... Erie, Pa.
Glancy Malleable Corporation ..... Waukesha, Wis.
Illinois Malleable Iron Co. ..... Chicago, Ill.
Iowa Malleable Iron Co. ..... Fairfield, Ia.
Kalamazoo Malleable Iron Co. ..... Kalamazoo, Mich.
Laconia Car Co. ..... Laconia, N. H.
Lakeside Malleable Castings Co. ..... Racine, Wis.
Lancaster Foundry Co. ..... Lancaster, Pa.
Link-Belt Co. ..... Indianapolis, Ind.
Marion Malleable Iron Works ..... Marion, Ind.
Moline Malleable Iron Co. ..... St. Charles, Ill.
National Malleable & Steel Castings Co., Cleveland, O., Chicago, Ill., Indianapolis, Ind., Toledo, O., E. St. Louis, Ill. ..... Cleveland, O.
Northern Malleable Iron Co. ..... St. Paul, Minn.
Northwestern Malleable Iron Co. ..... Milwaukee, Wis.
Peoria Malleable Castings Co. ..... Peoria, Ill.
Pittsburgh Malleable Iron Co. ..... Pittsburgh, Pa.
Rhode Island Malleable Iron Works ..... Hillsgrove, R. I.
Rockford Malleable Iron Works ..... Rockford, Ill.
Ross-Meehan Foundries, The ..... Chattanooga, Tenn.
St. Louis Malleable Casting Co. ..... St. Louis, Mo.
Saginaw Malleable Iron Co. ..... Saginaw, Mich.
Standard Malleable Castings Co. ..... Terre Haute, Ind.
Stowell Co., The ..... South Milwaukee, Wis.
Superior Steel Castings Co. ..... Benton Harbor, Mich.
Symington Co., The ..... Rochester, N. Y.
Temple Malleable Iron & Steel Co. ..... Temple, Pa.
Terre Haute Malleable & Mfg. Co. ..... Terre Haute, Ind.
Trenton Malleable Iron Co., The ..... Trenton, N. J.
Union Malleable Iron Co., The ..... E. Moline, Ill.
Vermilion Malleable Iron Co. ..... Hoopeston, Ill.
Warner Malleable Castings Co. ..... Hammond, Ind., and Beloit, Wis.
Warren Tool & Forge Co. ..... Warren, O.
Webster Mfg. Co., The ..... Chicago, Ill.
Wisconsin Malleable Iron Co. ..... Milwaukee, Wis.
York Mfg. Co. ..... York, Pa.
Zanesville Malleable Co. ..... Zanesville, O.

A Better Understanding of Certified Malleable Quality

No. 4—Cold Punching Tests

Persons not familiar with the properties of Certified Malleable Iron would expect this 5/8" malleable plate to shatter to pieces at the first blow of the punch press.

Note the great number of 3/4" holes cold punched in this plate; some of the walls between holes being a scant 1/8". The 1 1/2" large hole on the left plate was drifted from 3/4" to 1 1/2" diameter without fracture.

Dominant Physical Properties. While other ferrous materials each possess one or more valuable physical properties, Certified Malleable Iron has the distinction of possessing all of the inherent requirements of economic production and severe operation—Uniform Structure—Easy Machining—Great Strength with Light Weight—Shock Resistance—and Rust Resistance.

Certified Malleable Iron is the product of those plants who receive a quarterly certificate of merit from the consulting engineer of The American Malleable Castings Association; certifying that their product has met his exacting physical tests and that their plant practice, as shown by rigid inspection, insures the production of uniform malleables of the highest quality and integrity.

AMERICAN MALLEABLE CASTINGS ASSOCIATION
UNION TRUST BUILDING CLEVELAND, OHIO

POSITIVE PHYSICAL PROPERTIES
AcA CERTIFIED

CERTIFIED-MALLEABLE CASTINGS

A No. 101-B One Nozzle Curtis Air-Mist Installation in operation.

Wash Cars With Curtis Air-Mist

Unlike any other method of car washing, the Curtis Air-Mist System directs a finely *atomized air and water mist* against the car surface. It does NOT throw a solid stream of water or alternate "slugs" of water and air to strike the car body and drive grit and dirt particles into the paint surface, permanently injuring the finish.

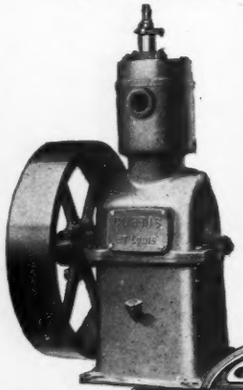
The amount of water and air is so accurately proportioned and mixed in the Curtis System that there is a minimum of possibility for injury to the paint surface—the fine mist quickly penetrates the caked-on dirt and grease, softens it and gently washes it away.

CURTIS Air-Mist Car Washing System

The Curtis Air-Mist Car-Washing System is a time-tested product, having been developed after more than 7 years study. It is especially recommended for quickly and easily washing chassis, including the under side of fenders, the springs, axles, steering knuckles, and places usually inaccessible with the ordinary sponge and brush method.

Send for bulletin describing the complete Curtis Air-Mist Car-Washing System, together with full information, our proposition and prices.

CURTIS PNEUMATIC MACHINERY CO.
1507 Kienlen Ave. St. Louis, U. S. A.
Branch Office: 537-C Hudson Terminal, New York City



Warning!

The Curtis Air-Mist Car-Washing System should not be confused with other systems that simply build up water pressure by putting air pressure on the water pressure in the tank.

With the Curtis System the correct relation of pressure and volume of both air and water, necessary to insure correct atomization, is scientifically determined by means of the Curtis Flow Meter and the Curtis Nozzle is furnished to meet these individual conditions.

CURTIS CAR WASHING SYSTEM AIR-MIST

CURTIS PNEUMATIC MACHINERY CO.,
1507 Kienlen Ave., St. Louis

Established 1854

Gentlemen:—Please send me full details on Curtis Air-Mist Car-Washing System, your proposition and prices.

Name.....

Address.....

Jobber's Name.....

Address.....

Evans Standard Loading Devices

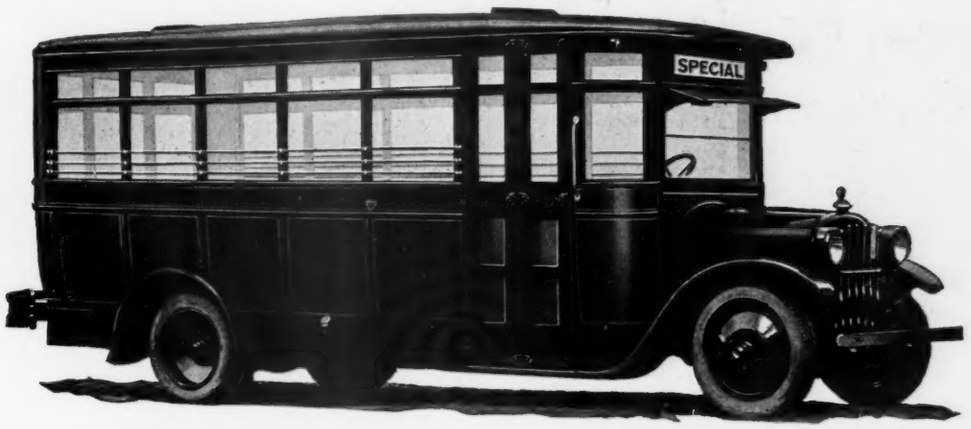
In 1915 it took an average of 270 feet of lumber per car to double deck an automobile.

Today with Evans Standard Loading Devices it takes but 85 feet—annually saving the industry, the dealer and the consumer more than five million dollars ($5,000,000) in lumber, labor and freight—with damage claims reduced by 90%.

E. S. Evans
President

E. S. EVANS & CO. INC.
Dime Bank Building · Detroit, Mich.

Loading Shipping Decks into Freight Cars at the Evans Detroit Factory



The greatest single factor in the success of Weatherproof Pay-Enter Bodies is the unity of design and construction—each piece being in harmony with the next in strength, in quality, in beauty, in durability. They are bodies without weak points—the product of seventeen years' experience in automotive work.

Weatherproof Body Corporation

Weatherproof

438 Shiawassee St. Corunna Michigan

Builders of Pay-Enter, Sedan and Tour-a-Bus Bodies. Also Truck Cabs, Commercial and Passenger Bodies

Let This Sign Bring You More Business — Better Profits

IT will do that for you, just as it is doing it for other selected tire merchants everywhere. Federal's 1925 national advertising campaign, bigger and better than ever, is telling the public that wherever they see this Federal sign displayed, they are sure of getting not only good tires, but dealer service beyond comparison.

The result is, this sign attracts business. Better still, are the extra profits that come through the unusually attractive Federal Sales Plan.

Remember, that these extra profits are not on an unknown poorly made tire, but on an old, nationally advertised favorite, which has a reputation for high quality.

Let the Federal representative tell you more about what is back of this sign.

A Positive Sales Influence

Many an agency's best customers have been influenced into making their first truck or bus purchase by these three significant words:

"Transmission from Fuller"

By adding this one phrase to his trucks' specifications, the manufacturer always finds the agency and sales response to be immediate, enthusiastic *and profitable.*

Fuller Transmission

is known throughout the industry as the one final, conclusive sales argument in favor of the truck so equipped.

We will gladly place our entire organization at the disposal of your engineers and assist you in all possible ways in the solving of transmission problems now confronting you. Ask for details!

For Bus Installation

Fuller GU-14, Standard Bus Transmission for city and country service with average and high speed rear axle ratios. 4 speeds: Direct 1.6, 3, 4.80 ratios. Reverse 6.5.

Fuller GU Overgeared Bus Transmission for country service with average axle ratios where greater speed is desired than obtainable with direct drive transmission and high speed axle. 4 speeds: Direct 1.87, 3.03. Reverse: 4.1 .685 or 46% overdrive. Clutch 14 facing, gear tooth type, multiple disc, extra wide friction facings.

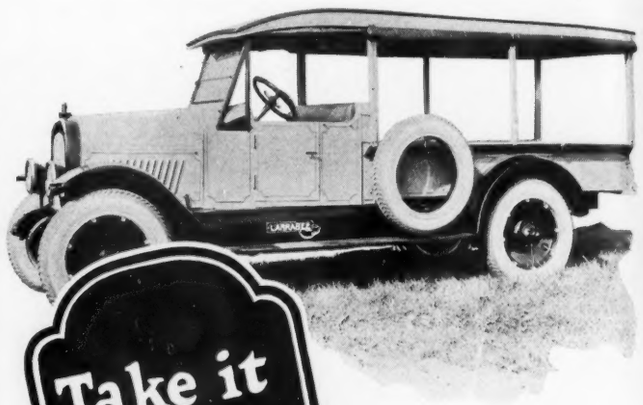
Fuller & Sons Manufacturing Company

KALAMAZOO MICHIGAN

SAN FRANCISCO

READING, PA.

LONDON, ENG.



Take it from Larrabee

USERS

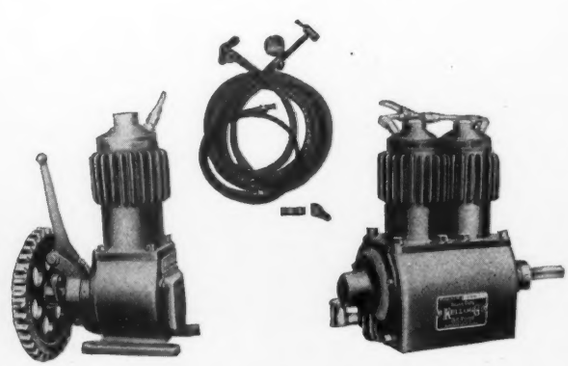
Acme
Advance Rumely
American LaFrance
American Motor Body
Atterbury
Biederman
Brockway
Century
Clydesdale
Coleman
Commerce
Corbitt
Day-Elder
Diamond T
Federal
Four-Wheel Drive
Garford
Gary
G. M. C.
Gotfredson
Guilder
Hawkeye Dart
Huffman
Larrabee
Maccar
Mack
Maxim
Minneapolis Steel
Nelson
Pierce-Arrow
Republic
Ruggles
Stewart
United
White
Wichita
Yellow Coach
Winther

Increased respect for Larrabee dealers' capacity to cooperate intelligently with commercial truck buyers springs from the supreme performance of the Kellogg Tire Pump and manifests itself in repeat business and greater goodwill.

A Kellogg will do the same for you.

Specify a Kellogg in your next truck sale and get in on a good thing.

KELLOGG MANUFACTURING CO.
Rochester, N. Y.



It Spotlights Invisible Costs

Careless driving, roundabout routing, waste of fuel, abuse of tires; these leaks go on—unseen.

They may never show in the absence of mileage-records. But they show in comparative *costs-per-mile*, as indicated by the

Veeder

HUB ODOMETER

When the truck owner sees what the *VEEDER* sees, the ruinous operating stops. It can't stand the light.

Point out to your customers that cost-records *cut* costs. Then you can point to the *"Veeder"* for trustworthy records.

REGULAR MODEL (list) ...$20.00
FORD TRUCK MODEL $15.00

Informative circular on request

The Veeder Mfg. Co.

10 Sargeant Street Hartford, Conn.

Sales and Service Stations in

Atlanta, Ga.
Baltimore, Md.
Boston, Mass.
Buffalo, N. Y.
Chicago, Ill.
Cincinnati, Ohio
Cleveland, Ohio
Dallas, Texas
Denver, Colo.
Detroit, Mich.
Indianapolis, Ind.
Kansas City, Mo.
Los Angeles, Cal.
Montreal, Quebec
New Orleans, La.
New York, N. Y.
Philadelphia, Pa.
Pittsburgh, Pa.
Providence, R. I.
Rochester, N. Y.
St. Louis, Mo.
St. Paul, Minn.
San Francisco, Cal.
Syracuse, N. Y.
Tacoma, Wash.
Toronto, Ontario
Washington, D. C.
—and other cities.

"Good Cleaning, I Call It!"

—said this Manufacturer

This Advertisement is one of a series based on actual occurrences in the

These radiator shells smeared with graphite and soaked in oil and drawing compound are coming through perfectly. There are no rejects, no hand wiping and 40% less cleaning material is used. Corners and crevices are entirely free. There is no danger of peeling and cracking when the job is finished. That's what a good cleaner should do.

And Oakite does it. Been doing it for years, after everything else had failed. This manufacturer had never been able to get a chemically clean surface on this job. Dry graphite had to be rubbed off by hand. His plating and enameling was uncertain. Rejects had been numerous, cleaning costs high.

It took a little experimenting to find out how to do the job right. But he did it. The Oakite Service Man spent a little time with him, and together they eliminated all cleaning trouble for good.

Oakite materials invariably enable you to do a better cleaning job for less money. The 70 Oakite Service Men are cleaning specialists. Their experiences in 18,000 plants in 300 different types of industry are usually valuable in helping you to solve *your* cleaning problem. This service is free and your use of it implies no obligation. A card brings the Oakite man who is located in your vicinity. Write today.

There are 70 Oakite Service Men, cleaning specialists, located at:

Allentown, Pa., *Atlanta, Ga., Baltimore, Boston, Bridgeport, *Brooklyn, Buffalo, Camden, Canton, O., Charlotte, N. C., *Chicago, *Cincinnati, *Cleveland, *Dallas, *Davenport, Dayton, *Denver, *Des Moines, *Detroit, Erie, Flint, Mich., Grand Rapids, Harrisburg, Hartford, *Indianapolis, *Kansas City, *Los Angeles, *Milwaukee, *Minneapolis, *Montreal, Newark, New Haven, *New York, *Oakland, Cal., Peoria, Philadelphia, Pittsburgh, Portland, Me., *Portland, Ore., Poughkeepsie, Providence, Reading, Rochester, Rockford, Rock Island, *San Francisco, Schenectady, *Seattle, *St. Louis, Syracuse, Toledo, *Toronto, Utica, *Vancouver, B. C., Waterloo, Ia., Williamsport, Pa., Worcester.

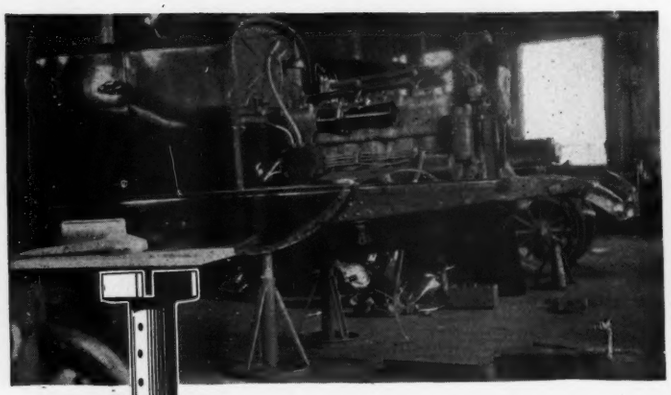
***Stocks of Oakite Materials are carried in these cities**

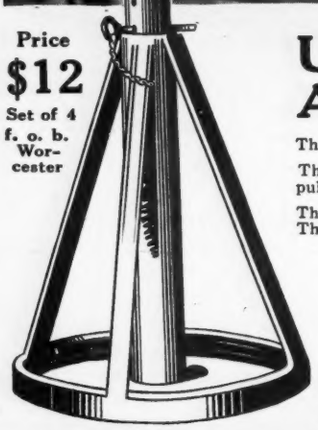
Oakley Chemical Co. *General Offices:* **38 Thames St., New York, N.Y.**

OAKITE

Trade-Mark Reg. U. S. Pat. Off.

Industrial Cleaning Materials





Price
$12
Set of 4
f. o. b.
Worcester

Use a Set of Auto Stands

They will support a 5-ton truck!

They won't tip over with the heaviest pull on a wrench.

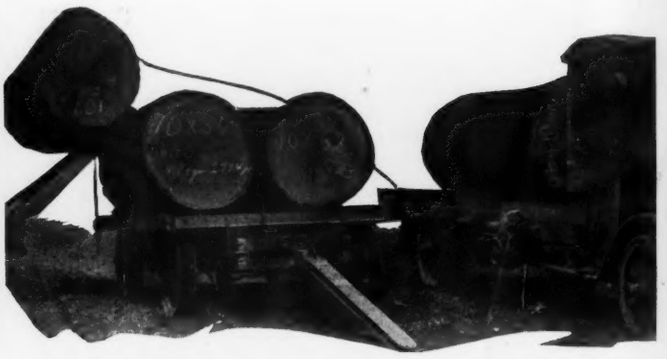
Their wide circular base prevents wobble. They don't get in the way.

Height 12" for front axle, 15" for rear axle, each with 9½" adjustable extension.

Write for folder of valuable information on this and other stands. Territory open for dealers.

Central Autogenous Welding Company
Worcester, Mass.

AUTO STAND — FOR — CHASSIS



One Man Loading Makes the Log Truck Pay

With the Amos Loader you can sell a logging truck that you couldn't sell without.

One man can put on a load in 20 minutes and then load a trailer. One man instead of two—truck and trailer instead of truck alone.

Right there you have the difference between operating at a loss and piling up a big profit. Any lumbering concern can see it.

Make the Amos Loader sell trucks for you. And remember that the Loader itself is a right good sale.

Drop us a post-card and let us tell you more about it.

Amos Loader Company
Edinburg Indiana

Splitdorf Dependability for Garford

For dependable day-in, day-out; year-in and year-out Service—nothing has ever equaled Splitdorf Ignition.

It is because of this quality of supreme dependability that the Splitdorf Magneto is used as equipment on the magnificent 181-inch wheelbase, 23 passenger bus constructed by Garford for the Mesaba Transportation Company, operating out of Hibbing, Minnesota.

Splitdorf Electrical Company
392 High St., Newark, New Jersey

TRADE SPLITDORF MARK ESTABLISHED 1900

Dealers who would like to tie closely to profits, repeat orders and prestige should sell Walker Electric Trucks.

With electric trucks fast crowding old Dobbin off city streets and many stop delivery routes, it is a far seeing dealer who is prepared to sell both gasoline and electric trucks.

A market that has barely been scratched offers tremendous possibilities of profit to progressive dealers. Walker fleets worth millions are steadily increasing.

Write for details of how to secure a profitable Walker dealership.

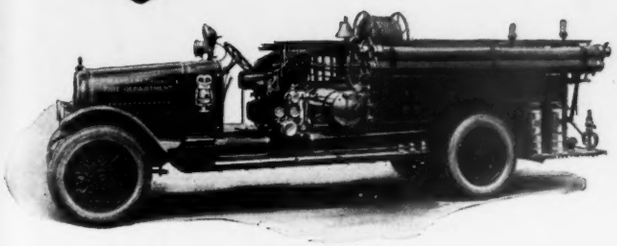
WALKER VEHICLE COMPANY · Chicago
Leading Manufacturer of Electric Street Trucks
NEW YORK BOSTON PHILADELPHIA BUFFALO ST. LOUIS BIRMINGHAM
Branches and Distributors in Principal Cities
Load Capacities: ½—¾—1—2—3½—5 tons

WALKER ELECTRIC TRUCKS
LOWEST TRUCKING COST ON CITY ROUTES

USERS OF SPICER PROPELLER SHAFTS

(One of a series)

SPEED LARRABEE SIX



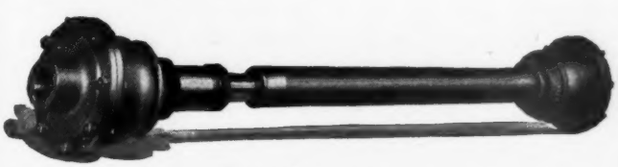
CLANG! clang! warns the fire engine, hurtling like a thunderbolt through the stilled traffic. Bouncing over cobbles and crossings, ruts and ridges—racked by the side-swing of zig-zag turns—on it roars!

The sturdy stamina of the Larrabee-Deyo chassis and the unfailing

Spicer Propeller Shaft

are vital factors in helping the Foamite-Childs fire-fighting machine here pictured, to accomplish, efficiently, its work of getting there speedily to save life and property.

Spicer Propeller Shafts are standard in all Larrabee-Deyo Motor Trucks because the mechanical perfection of this shaft is an asset that adds little to production costs, and much to axles and service.



Associated Spicer Companies

Spicer Manufacturing Corporation, South Plainfield, N. J.
Parish Manufacturing Corporation, Reading, Pa.
Sheldon Axle & Spring Company, Wilkes-Barre, Pa.
Salisbury Axle Company, Jamestown, N. Y.

Ford Type, Nickel-Plated

Should YOUR Operating Costs be 30% Less?

What is the operating cost per mile on each of your trucks? What length hauls make you the most profit? Which trucks are making money and which losing money? How much idle time does each truck lose per day? These are just a few of the basic facts that you must *know* if you are to get the highest possible returns from your time and investment. The sure, accurate way to get these facts is to install Ohmer Hub-Odometers.

Where Do Your Profits Go?

Some fleet owners reduce their costs as much as 30% when they equip with these profit-saving devices. They locate the leaks—they put *every* truck in the profit column.

They Save Their Cost in a Few Days

You put the Ohmer Hub-Odometer on in place of the regular cap and seal the hidden set screw—then you forget it, except to take the readings. It is sturdily built, free from trouble and matches the regular hubs. The figures always read right side up.

The coupon below will bring you information that will be worth money to you.

Ford type, $12.00. Chevrolet, Overland and Star type, $15.00. Types for all other makes of cars and trucks, $20.00.

Ohmer Sales and Service Stations in All Principal Cities

OHMER FARE REGISTER COMPANY
DEPT. C DAYTON, OHIO, U. S. A.

OHMER
HUB ODOMETER

Mail Coupon for Free Plan to Reduce Operating Expense

Ohmer Fare Register Co.
Dept. C Dayton, Ohio

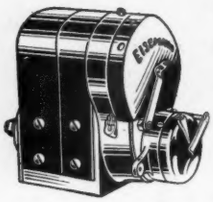
Gentlemen: Please mail me free, complete plan for reducing my truck operating expense, also complete information about Ohmer Hub-Odometers. This does not obligate me in any way.

Name .....

Address .....

.....

Acknowledged *the Leader*



So many ignition authorities of recognized reputation have tested the Eisemann Magneto under all sorts of conditions that its superiority has been convincingly established.

This, and the fact that the Eisemann Magneto is standard equipment on the large majority of motor vehicles, clearly demonstrates its unquestionable supremacy.

EISEMANN MAGNETO CORPN.
165 Broadway, New York
DETROIT CHICAGO SAN FRANCISCO

(2031-39)

EISEMANN
ELECTRICAL EQUIPMENT

"Superior Ventilation"

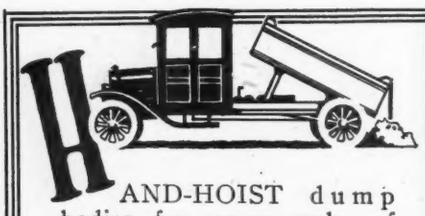
"Superior Ventilation" is *different!* "Superior Ventilation"—by N-L—not only takes foul air out, it keeps drafts, rain, snow and dust out as well! N-L Vehicle Ventilators are *economical;* they can assist in making your body jobs more attractive to the buyer—without material increase in cost to you.

Universal No. 3
Price $1.00

Our booklet, "Superior Ventilation," describes and illustrates various moderately priced ventilating devices for closed cars of all kinds. Write for copy.

The Nichols-Lintern Co.
7960 Lorain Avenue
CLEVELAND, OHIO

Canadian Representative: Railway & Power Eng. Corp., Ltd., Toronto



HAND-HOIST dump bodies for every make of truck up to 2½ ton capacity. We also manufacture special steel bodies of every description for ice and ice cream manufacturers, coal dealers, contractors, general haulers and municipalities. We solicit inquiries from authorized truck dealers.

THE GALION ALLSTEEL BODY COMPANY
Galion Ohio

GALION ALLSTEEL BODIES

When *Time Means Money*

Over rough roads and often where there are no roads at all, day in and day out, fleets of sturdy and speedy Hug Trucks are constantly on the job. Loaded with heavy batches of cement, they run up to 40 miles an hour when fighting time to finish work within the contract period.

The Hug Company, ever since its inception in the industry, has used Perfex Radiators consistently, as have other hard-duty truck manufacturers and builders of power units, whose machinery must stand the wear and tear of high-pressure work.

RACINE RADIATOR CO., *Racine, Wis.*

PERFEX
THE PERFECT RADIATOR

You Want a Hoist You Know is Right

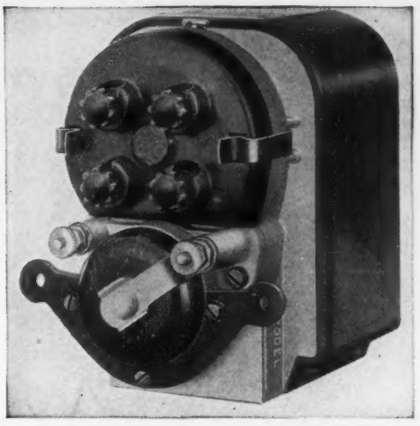
The Tribloc Hoist

is the spur-gear type and has **80% efficiency**—all parts made of malleable iron and drop forged steel.

We make three types of chain hoists. ***Write for Catalog 6-B.*** Hoists for every purpose.

Ford Chain Block Company
Second and Diamond Sts.
Philadelphia, Penna.

TEAGLE



SIMPLICITY-RUGGEDNESS
EFFICIENCY-RELIABILITY

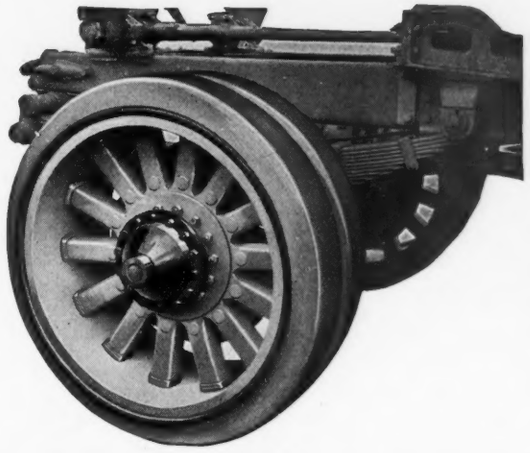
Conforms to S. A. E. Standards

Write for Further Information

The Teagle Co.
Cleveland, Ohio

"The Simplest Magneto of Them All"

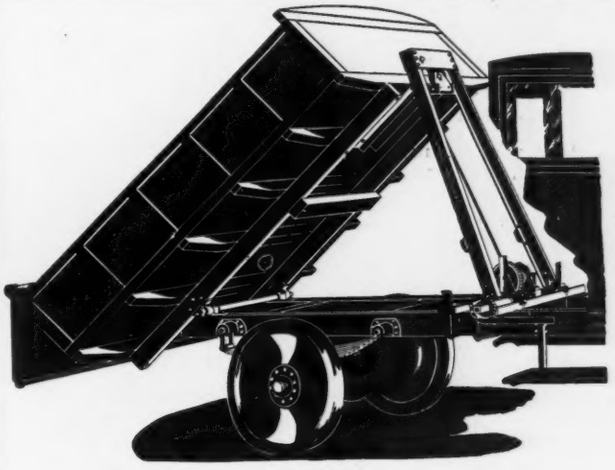
THE HOOPES METAL FELLOE WHEEL



A wood spoke, metal felloe truck wheel which has *Strength, Light Weight* and *Resiliency*. Standard equipment on leading makes of trucks.

Send for Descriptive Literature

HOOPES, BRO. & DARLINGTON, Inc.
WEST CHESTER, PA.



ROCK HAND HOIST

A well-designed and carefully built, simple, practical hand hoist for dump bodies up to 3½ tons capacity.

Cut gears are used on the winch.

Can be mounted on any width of chassis without change.

No holes required in truck frame for mounting hoist.

Occupies but 9" space back of cab.

Dumping angle from 35° to 45°.

PRICE, With Body Hinge, $85.00
Without Hinge, $75.00

ROCK MANUFACTURING CO., Waterloo, N. Y.

Stewarts

ALL PURPOSE STEEL **BODY**

BUILT FOR SERVICE

Patent Applied for

Quick-Acting Self-Dumper for Ford Trucks

DUMPS WITHOUT HOIST

Best and Strongest Body on the Market Today
Ready to Mount on FORD Chassis

Liberal Discount to Dealers

THE STEWART IRON WORKS CO.
Incorporated
CINCINNATI, OHIO **COVINGTON, KY.**

The New

BETHLEHEM

THE NEW BETHLEHEM has more selling features —it is not just another truck.

Bethlehem Motors Corporation of N. Y., Allentown, Pa.

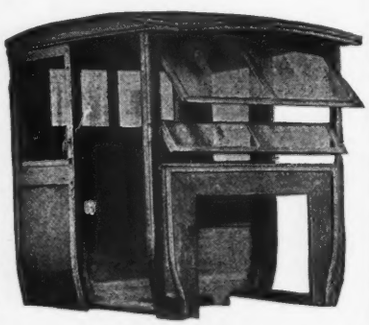
A TRUCK IS AS GOOD AS ITS DRIVER

If you can make your customers' drivers like their jobs they'll write up some high service records for your line, for *a truck is as good as its driver!*

But what chance has a truck of making *good* service records when its operator is exposed to all kinds of weather. In either summer or winter lay-overs are frequent while the driver stops to regain bodily comfort—and each time the record drops.

A RAIN OR SHINE CAB—the sturdiest, strongest, most enduring truck cab on the market—keeps the driver comfortable and the truck on the go despite weather.

The initial cost is small when compared to the added profits, sales and reputation which will come your way. Write us for details and literature.

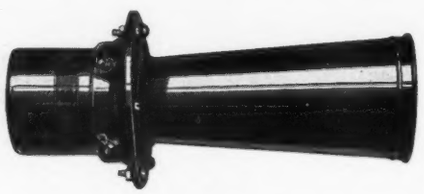


General Woodwork Corp.
Cincinnati Ohio

RAIN OR SHINE TRUCK CABS

NORTH EAST

Starting Lighting Ignition Horns Speedometers



The New Model XA North East Horn

Has a tone that means business.
Requires practically no attention.
Is built to stand up for years.
The Horn for high powered Motor Cars, Buses and Trucks.

NORTH EAST ELECTRIC CO.
ROCHESTER, N. Y., U. S. A.
Manufacturers of

Starter-Generators Generators Starting Motors Ignition Units
Ignition-Generators Horns Speedometers
Switches Regulators

Durabilt Truck Cabs afford easy entrance and quick exit from the driver's side, and they are the only cabs with closed car comfort in all weather.

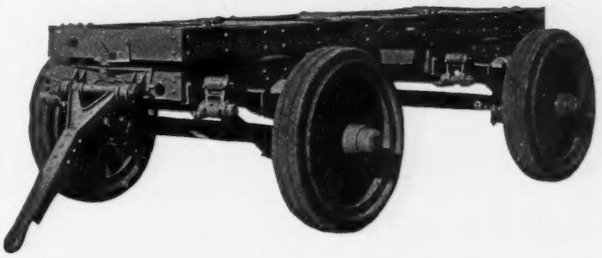
Sheet Steel Products Company
Chicago

Railway Exchange

Detroit Office: Donovan Bldg.

Plant: Michigan City, Ind.

FRUEHAUF TRAILERS



Repeat Sales—for Big Profits

A sale of one Fruehauf Trailer is usually followed by a repeat order—which is often a fleet sale.

That of course is due to Fruehauf superior design, exclusive features of construction—and immediate sharp lowering of haulage costs.

Fruehauf Trailer Company is one of the largest and oldest trailer concerns in the United States. It has come thru the trying period of the last two years in a financially sound condition. It is growing steadily—and Fruehauf dealers are growing with it.

Write for the Fruehauf list of "Saving-hauling-costs Fleets," the road-sign to opportunity for the dealer with vision and aggressive sales punch.

FRUEHAUF TRAILER COMPANY
10921 Harper Ave. Detroit, Mich.

BOWEN SYSTEM

For All Motor Cars and Trucks

AN AUTOMATIC system of lubrication that enables the owner to perfectly oil every chassis bearing in a few seconds without leaving the driver's seat.

It banishes forever that old familiar bugbear—dirty, ineffective, makeshift lubrication. No more disagreeable, messy jobs filling grease or oil guns or similar devices and tediously applying to each bearing in turn.

A mere pressure of the foot on the lubricator button—projecting up through the floor boards—and every chassis bearing is automatically and simultaneously flooded with a shot of oil forced in under heavy pressure.

The volume of oil forced into each bearing is measured—one drop or a teaspoonful according to exact requirements, insuring adequate and perfect lubrication without waste.

Manufactured by

Bowen Products Corporation
Auburn, New York

The BOWEN SYSTEM is standard equipment on the CLEVELAND SIX, all models

GURNEY BALL BEARINGS

are all built for a purpose

For instance: the

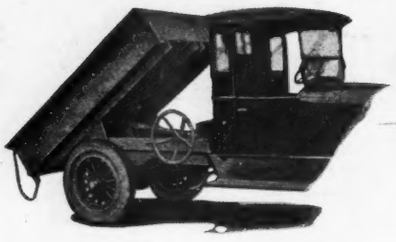
DEEP GROOVE *TYPE C*

have been particularly made for the automotive trade for use as either originals or replacements. Here's why:

They have deep, uninterrupted raceways which allow for *thrust loads from either direction* without injury to the bearings. Of course this lets you mount them with either side to the load. Then, because we want to make the best bearing you can get, we *heat treat*, not just case harden, each part and subject every part to a close inspection after each productive operation—*you can't get a poor bearing from Gurney.*

We will gladly give you all the other facts and interesting information about *Type C* if you will drop us a line.

Marlin-Rockwell Corp.
Successors to
GURNEY BALL BEARING CO.
JAMESTOWN, N. Y.



SAFTEE

DUMP BODIES

For Light Weight Trucks

The hand-operated type has enclosed worm gear that holds body at any angle. No possible back-kick on crank. Raised 55° in 30 seconds.

Quantity Sales
Quality Profits

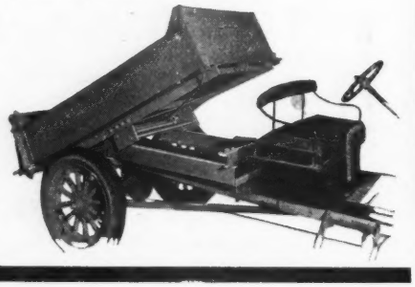
Saftee Dump Bodies sell trucks in fleets. The fact that they are safe for the driver and do not rack the chassis brings big orders.

Built of 10-gauge steel electrically welded. End gate opens either top or bottom.

Made to Fit All One and Two-Ton Trucks

Ditwiler Manufacturing Co.
Galion, Ohio

The automatic gravity type dumps in 5 seconds without severe jolting or racking of the chassis. Road clearance when dumping 18 inches. Made for Ford and Chevrolet.



SAFTEE

Scientific Bus Heating

Complete heating systems carefully worked out according to the best engineering practice—made up of standardized parts adaptable to all body and chassis models.

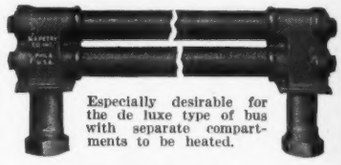
Some Users:

American Body Company
American Motor Truck Co.
Buffalo Body Company
J. G. Brill Company
Camden County Bus Assn.
Champion Auto Equipment Co.
Chicago North Shore and Milwaukee R. R.
Edwards Railway Motor Car Co.
Fifth Ave. Coach Company
Fremont Metal Body Company
General Motors Truck Company
Graham Bros.
Hahn Motor Truck Company, Inc.
International Harvester Co.
International Motor Company
G. C. Kuhlman Car Company
Mesaba Motor Company
Royal Motor Coach Co., Inc.
Six Wheel Company
Twin City Motor Bus Co.
Union Motor Truck Co.
United Electric Railway Co.
Wiener Body Company
Wisconsin Motor Coach Co.
The Yellow Coach Mfg. Co.

Various types of valve, pedal and dash controls, fittings, seamless tubing, compression unions, easy bends, guards, hangers, insulation, etc.

Our New Heating Unit

The seamless horizontal tubes may be of any length. Provision is made for cleaning and for guards.

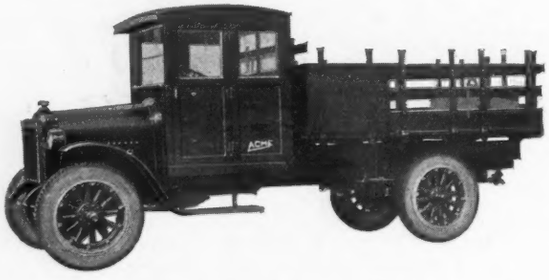


Especially desirable for the de luxe type of bus with separate compartments to be heated.

N. A. PETRY COMPANY, Inc.
Reg. in U. S. Pat. Off.
324 N. Randolph Street, Philadelphia, Pa.

PETRY

Bus Heating System



Acme Sales Grow

The sales of no truck can climb past the reputation that truck has built up for itself among users. It's another tribute to the in-built quality of Acme Trucks, as known among thousands of users, that Acme sales continue to climb.

The dealer who handles the Acme Line knows values. To him every Acme sale is an endorsement of his judgment. And every Acme sale builds his reputation for fair dealing as well as his profits. The men who handle the Acme know that the good-will of Acme owners is a mighty source of profit to them, year in and year out.

Information on the famous Acme Franchise, and the Acme Line, is yours for the asking. Let us put you in touch with an interesting set of facts as soon as possible by dropping us a line *now*.

Acme Motor Truck Company
622 Mitchell Street
Cadillac, Mich.

Ten Acme Models Fill Every Need of Industrial Transportation

Trade-Mark Registered U. S. and other countries

ACME
THE TRUCK OF PROVED UNITS

An *H-W* Reed Motor Coach Seat of New Design

WHERE seating space must be conserved our new 49-P Luxureed is cordially welcomed by motor coach builders. Short arms, properly sloped backs and curved seat-fronts allow close placing with plenty of knee-room for passengers and storage for luggage. *Luxureed* seats have the built-in comfort and sturdiness so essential for long tours.

H-W bus-seating experts are at your service without charge.

HEYWOOD-WAKEFIELD SALES OFFICES

HEYWOOD-WAKEFIELD
1359 Railway Exchange Building, Chicago, Ill.

HEYWOOD-WAKEFIELD
516 W. 34th St., New York

HERBERT G. COOK
Hobart Bldg., San Francisco, Cal.

F. N. GRIGG
630 Louisiana Ave., Washington, D.C.

THE G. F. COTTER SUPPLY CO., Houston, Tex.

THE RY AND POWER ENGR'G CORP., Montreal and Toronto, Canada

Heywood-Wakefield
REG. U.S. PAT. OFF.

ACCURATELY DALL MACHINED

Semi-Steel Replacement Pistons

Uniform and Permanently Round

Cast from hard, tough, close-grained semi-steel — green-sand-moulded to insure uniformity.

Special heat treatment frees them from internal strains and hard spots, and improves their lubricating qualities.

150,000 pistons in stock. Orders received before 3 p. m., shipped before night.

Write for Price List and Terms

Complete Line

Finished: standard, .003, .005, .010, .020, .030, .040. On 3¼" diam. and over, .0625. Semi-finished, 1/16" (.062) and .080. oversize.

The Dall Motor Parts Company

P. O. Station D

Cleveland Ohio

McGARRY PATENTED LUMBER LOADER & UNLOADER

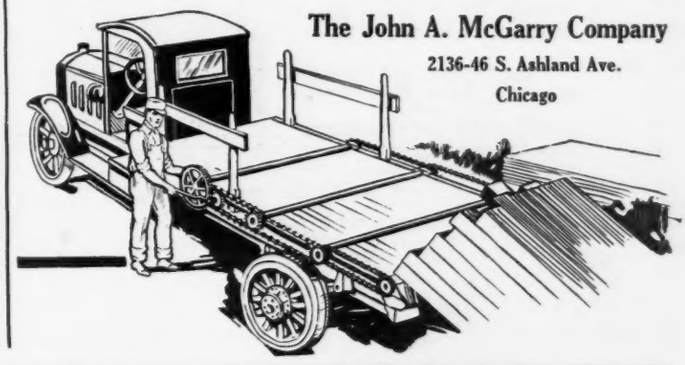
5000 ft. of Lumber Unloaded in 2 to 4 minutes by one man

The McGarry Lumber Loader is a device which will have a tremendous volume of sales among lumber truck owners and operators in your territory as soon as it is introduced.

Its savings in time and money plugs the biggest hole in the operator's overhead—truck idling. Its efficiency can be readily appreciated at a glance.

The McGarry Loader operates on four rollers connected with cotter pin chains (tested to 5000 lbs.) and OPERATE IN UNISON by turning one safety crank with 3 to 1 gear ratio. This reduction enables one man to handle 6 or 7 tons with ease.

McGarry representation can be a profitable one for you. And the sooner it is established, the sooner its profits begin. Why not write NOW for details?



The John A. McGarry Company

2136-46 S. Ashland Ave.

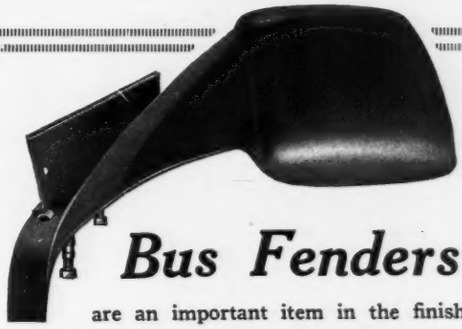
Chicago

REPUBLIC

More Trucks in Use than any other Exclusive Truck Builder

REPUBLIC *Yellow Chassis* TRUCKS

REPUBLIC MOTOR TRUCK CO., *INC., Alma, Michigan*



Bus Fenders

are an important item in the finished bus.

An inferior fender can create a decidedly unfavorable impression in a surprisingly short length of time, while a plant-made fender involves a total expense well worth considering.

Many manufacturers have found a highly satisfactory solution to such problems by placing them in our care. Our plant, dies, experience and ability are all so well rounded that we are exceptionally well prepared, as well as geographically located, to supply you with fenders and other sheet metal parts at a price which will probably be less than you expect and yet one which enables us to give you that quality you seek and deserve.

We also manufacture tanks, hoods, steel dashes, radiator shields, engine pans, cowls, running-board splashers, houses for industrial units, stampings, etc.

SEND DATA FOR ESTIMATE

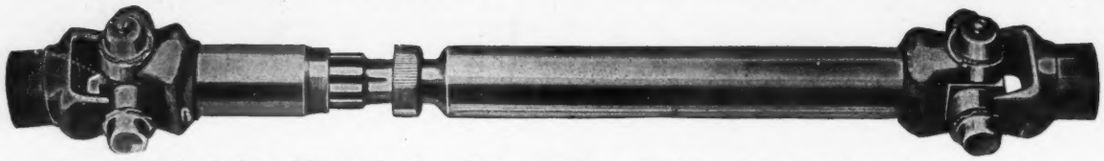
A. B. & B. SHEET METAL WORKS

B&B Specification Service

FOND DU LAC AVENUE AT 33RD ST.

MILWAUKEE

A TEST OF ABILITY LASTING 21 YEARS



Since 1904 the design of Blood Brothers Universal Joints has been changed only in details. During this time they have kept their place on the market in the face of all competition. No laboratory test could demonstrate more emphatically the mechanical efficiency of these simplest of joints.

BLOOD BROTHERS MACHINE COMPANY

Pioneer Makers of Universal Joints

ALLEGAN **MICHIGAN**

DAY-ELDER

WORM-DRIVE MOTOR TRUCKS

We could show you letters praising DAY-ELDER performance under many kinds of extraordinary conditions, but they would not mean as much to you or to us as those *tacit testimonials* in the form of re-orders that DAY-ELDER dealers are getting year in and year out.

DAY-ELDERS are made for every trucking requirement, and every model is built to *sell on comparison* with any competing truck at any price.

There is a market for such a truck in your locality. Be the man to profit by supplying it! Write us for the details of our selling plan.

DAY-ELDER MOTORS CORP. **NEWARK, N. J.**

WYMAN-GORDON

The Crankshaft Makers

Worcester Division
WORCESTER, MASS.

Ingalls-Shepard Division
HARVEY, ILL.

No. 108 Special

Hale & Kilburn Seats Increase Bus Revenue

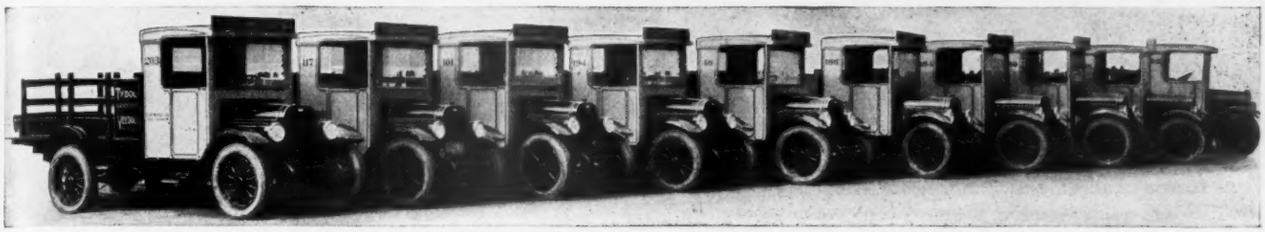
MORE KNEE ROOM
"H & K" Patented Space-Saving Feature gives 1½ inches more space for each passenger.

Specify "H & K" and get the best at no higher price.

No. 108 Special

Hale-Kilburn Company, Philadelphia

Sales Offices: New York, 30 Church St.; Chicago, McCormick Bldg.; Richmond, Mutual Bldg.; Atlanta, Candler Bldg.



IT PAYS TO ADVERTISE

Make your delivery service your advertising medium. Place your copy on Highland Cabs. *Meet us at the Boston Show, March 7—14.*

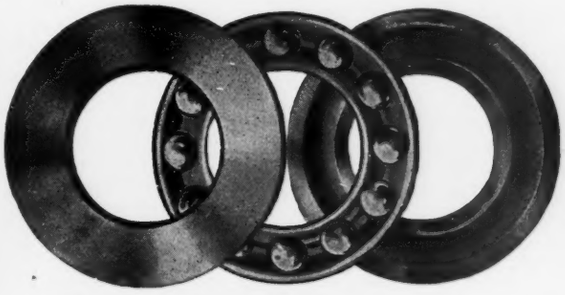
The Highland Body Mfg. Co. 403 Elmwood Place **Cincinnati, Ohio**

Whitfield De Luxe Center Aisle Type on Larrabee-Deyo X-2 Bus Chassis

The Maximum of Comfort and Permanent Satisfaction

with a minimum of expenditure in first cost and upkeep is made possible by the standardized *Whitfield-Resilient Construction*. Let us send you details of bodies to fit every need.

Whitfield & Sons, Inc.
Penn Yan, N. Y.



Detroit Office:
1012 Ford Bldg.

The Bearings Company of America

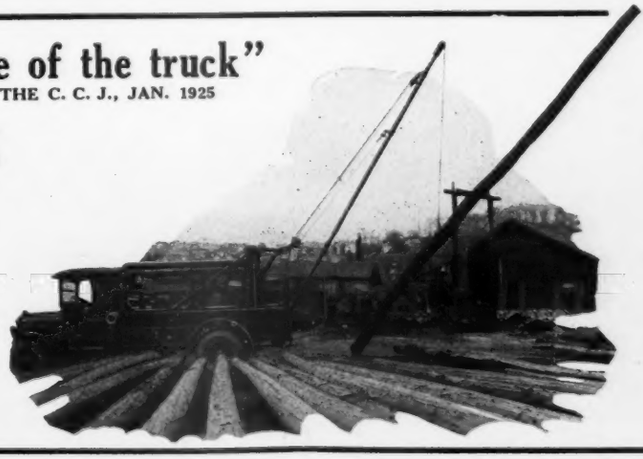
Manufacturers of STAR Ball Retainers for Thrust, Magneto and Cup and Cone types of Bearings. Complete Thrust Ball Bearings, Angular Contact Thrust Bearings and Angular Contact Radial Bearings (made to your blueprints and requirements).

The Bearings Company of America
Lancaster, Penna.

"Extend...the use of the truck"
H. LIONEL WILLIAMS, IN THE C. C. J., JAN. 1925

We Say—emphatically increase its utility 100% by supplying it with a high class (SILENT HOIST) Winch or Derrick as original equipment.

If you SELL trucks, you'll SELL MORE trucks by offering them complete with a Winch or Derrick installation to the contractors, riggers, machinery and safe movers, and public utilities!



Take for instance
an installation (as shown) of
the SILENT HOIST
MODEL TL
(Tirrell Patent) DERRICK
OPERATED BY THE MODEL TBB DOUBLE DRUM POWER WINCH.
At a small cost, it practically transforms the truck into a locomotive crane, for setting poles, smoke stacks, steel towers, masts, boilers, tanks, handling transformers, pipe, unloading railroad cars, etc.

The SILENT HOIST Co.
302-304 McDougal Street
BROOKLYN, NEW YORK

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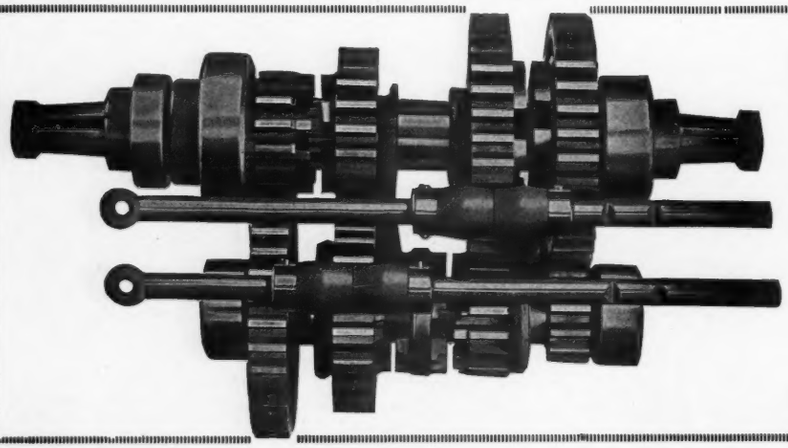

COTTA GEAR CO.

INDIVIDUAL CLUTCH TRANSMISSIONS FOR 3½, 5 and 7 Ton Trucks

Notice the short, compact and husky construction.

Long bearings in the loose gears.

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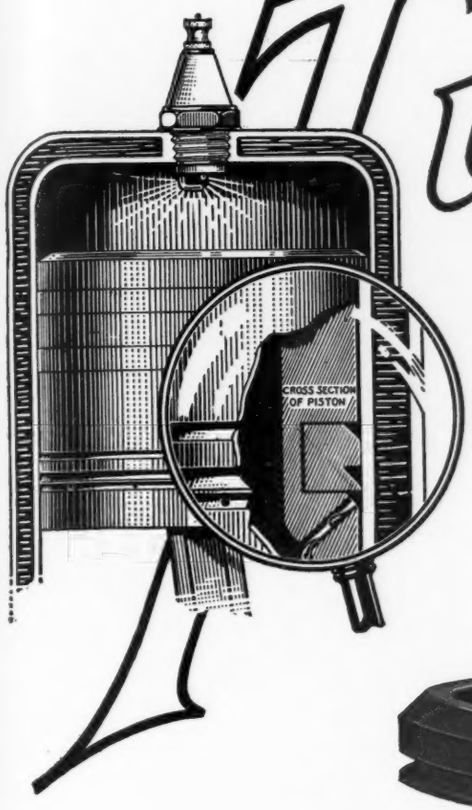

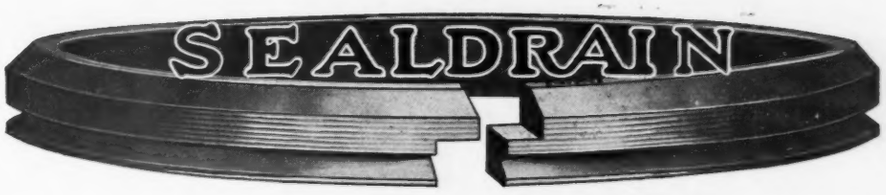

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The SEALDRAIN groove fills and empties on each complete piston stroke, thus forming an ever changing fresh oilseal or packing between ring and cylinder wall.

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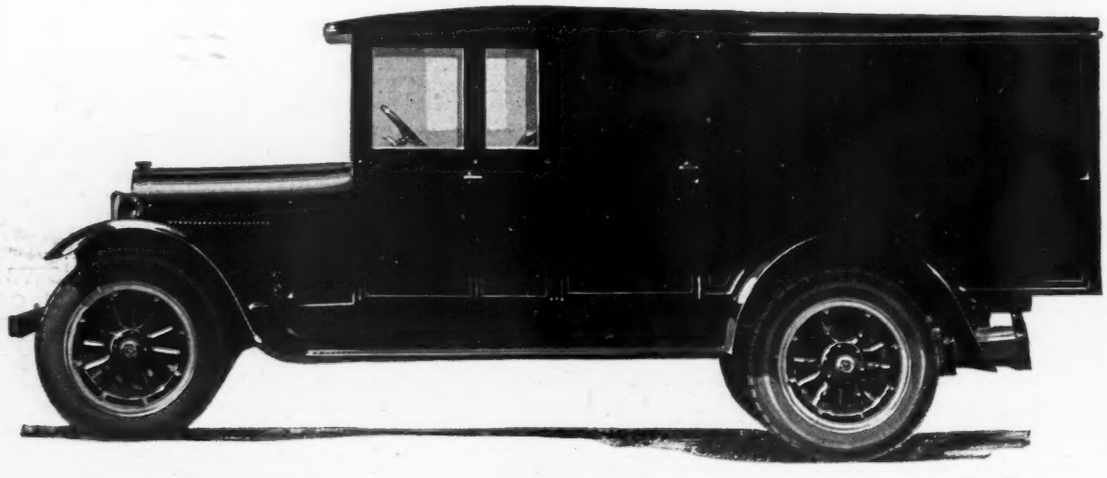

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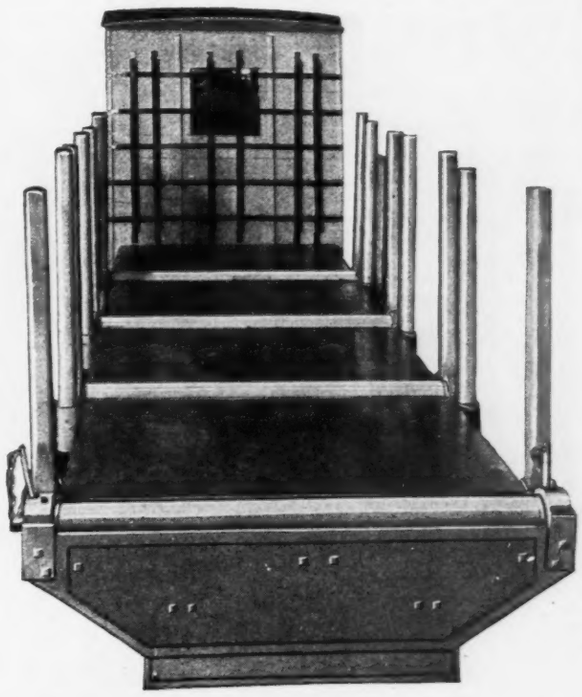

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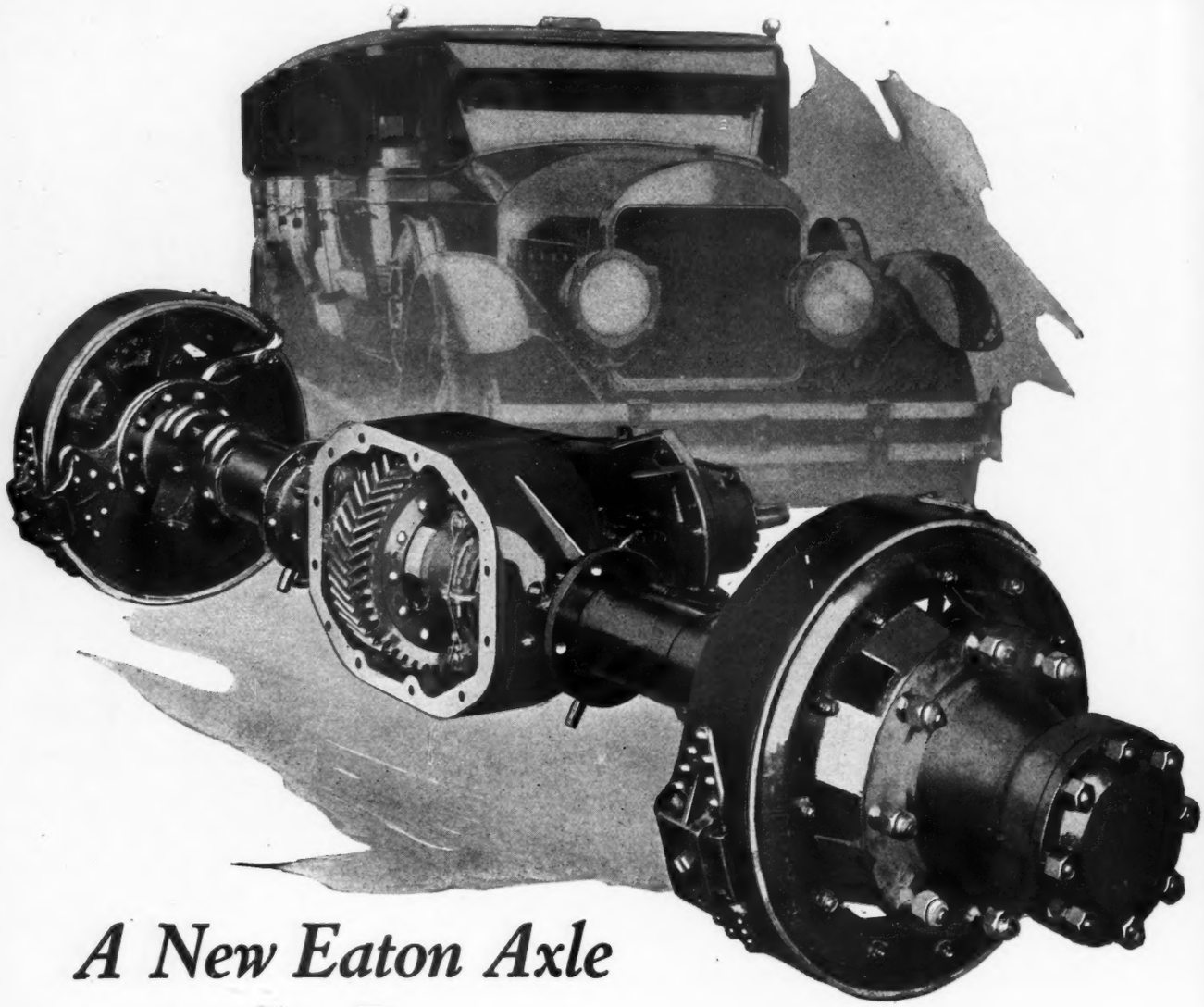

A New Eaton Axle —for Busses

THE new Eaton "Model 60000" is a double-reduction, full floating Bus Axle, operating thru spiral-bevel and herring-bone gears. It provides for great ground and body clearance, the over-all depth of housing being 13½ inches, which gives a ground clearance of 11¼ inches with 36-inch tires.

Oversize ball and taper bearings assure silent running and a long life without adjustments. It has provision for air brake chamber attachment; hubs made to accommodate demountable disc wheels, and other features particularly interesting to Bus builders and users. *Write for Blue Prints and Full Specifications.*

Specifications in Brief

Type—Double reduction full floating axle. 1st reduction thru spiral-bevel, 2d thru herring-bone gears.

Load Carrying Construction—Cast steel center housing, heat treated. Alloy steel tubes, heat treated and swedged down at outer ends onto which wheel bearings are mounted.

Clearance—The Gears are mounted in plane providing great ground and body clearance. Over-all depth of housing 13½ inches. Ground clearance 11¼ inches with 36 inch tires.

Mounting—Provides for either Hotchkiss Drive or Torque Arm.

Bearings—Driving units mounted on oversize ball bearings, wheels on oversize taper bearings.

Capacity—Axle Spring Pad capacity 12000 lbs., torque 22000 inch—pounds. Approximate allowable motor displacement 590 cubic inches.

Tires—Suitable for dual 36x6 inch or dual 34x7 inch with internal brake.

Weight—990 lbs. including hubs and drums.

Available Ratios—4½ to 1 to 7½ to 1.

Miscellaneous—Provision for air brake chamber attachment. Hubs are made to accommodate Disc Wheels.

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